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A Web-based Baby Names Selection System Report

(BabySpot)

By

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ABSTRACT.

Getting the right thesis topic these days can be really difficult. Everyone wants to develop a system that is the most latest, popular, and most important of all different from the other seniors, but at the same time simple and not too complex. In line with this, I wanted to do something different from the others.

Names have deeper meaning than meets the eyes. English names, for an example originate from Greek, Hebrew, French and etc. Indian names on the other hand come from different ethnic group such as Jain, Hindu, Sikh, Tamil and so on. We may not realize it but each name holds a different meaning and says a lot about the person who carries it. I have developed a web-based system that is able to provide meaning and origins of either an English, Malay, Chinese or Indian name.

The system I designed is basically an online guide for would-to-be parents in choosing a name for their baby. It is called "Baby Spot". It will be accessible on the Internet. In this modern world, everything and anything is possible on the Internet, even baby names. Although it is targeted to parents, users interested in knowing the meaning and origins of their name are welcomed to visit the web site.

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CHAPTER ONE

University of Malaya

CHAPTER 1 INTRODUCTION

1.1 GENERAL

The world of Internet is wide. It is a public network of computer that communicate using a communications protocol called *Transmission Control Protocol/Internet Protocol (TCP/IP)*. With the many facility provided from search engines, newsgroups and e-mail services, the Internet has definitely made life much more easier and comfortable. We do not have to leave our house in search of knowledge nor entertainment for all we need is our very own PC with a modem linking to the Internet.

CHAPTER ONE

A name can say a whole lot about a person. It is a reflection of a person's personality. When we name a baby, will he or she turn out according to his or her name? Some people believe that this is true. Parents often name their babies after their loved ones or famous figures. However, there are also parents who like to look at things from a different perspective when naming their future baby.

In relation to all this, I have designed an online system for baby names. I named my web-based system "BabySpot". "BabySpot" will serve as a means of searching and browsing for baby names. While it may seem like a simple system, it will be appropriate for parents. It will provide services such as information on finding out the meaning of their names and the origin, and it will also just keep on growing the meaning of a certain name.

The most interesting thing about this system is that it will be able to accommodate all the names of babies in Malaysia. This means that just at one stop, a user will be able to access either Chinese, Malay, Chinese or Indian names. As one of the multi-racial countries in the world, I felt that it was about time that someone developed a system that will be suitable for our multi-racial country.

CHAPTER 1 INTRODUCTION.

1.1 GENERAL.

The world of Internet is wide. It is a public network of computers that communicate using a communications protocol called Terminal Control Program/ Internet Protocol (TCP/IP). With the many facility provided from search engines, newsgroups and e-mail service, the Internet has definitely made life much more easier and comfortable. We do not have to leave our house in search of knowledge nor entertainment for all we need is our very own PC with a modem linking to the Internet.

A name can say a whole lot about someone. What actually lies behind a name? Does it really reflect a person or is a name merely a name? Do we reflect and think that when we name a baby, will he or she turn out according to his or her name characteristics? Some people believe that this is true. Parents often name their babies after maybe their loved ones or someone famous. However, there are the times they turn to books to choose names for their future baby.

In relation to all this, I have designed an online-system for baby names. I named my web-based system 'BabySpot'. 'BabySpot' will serve as a means of searching and browsing for baby names. While it may seem that this particular system will be appropriate for parents, it will provide service for users interested in finding out the meaning of their names and the origins, and for those just keen in knowing the meaning of a certain name.

The most interesting factor about this system is that it will be able to accommodate all the names of babies in Malaysia. This means that just at one stop, a user will be able to access either English, Malay, Chinese or Indian names. As one of the multi-racial countries in the world, I felt that it was about time that someone developed a system that will be suitable for our multi-racial country.

1.2 SYSTEM OBJECTIVE.

'BabySpot' was designed with the intention of achieving certain objectives. Firstly, the system provides detailed understanding of a person's or a baby's name. In this way parents are fully aware the meaning of their baby's name and its effects of it as it will remain for a lifetime. Naming a child a wrong name might just have an effect later in life.

Secondly, having someone know that their name means something good and positive will generally make them live up to their name. In the long run, this system will be the provider of good tidings. For example, if your name means 'brave, light or sunshine' it will definitely make the name bearer not only happy with their name, but also carry out their task according to their name.

Thirdly, this system is very flexible as there are multiple ways to search according to user convenience or preference. A certain user might just want to browse around, not looking for something in particular, while another might be in search of the meaning of a certain name. 'BabySpot' assures users to select any method of searching for information.

While some systems randomly selects a meaning of a name from the database, 'BabySpot' gives a detailed and accurate definition of the input name. To ease user errors dealing with problematic user-interfaces, 'BabySpot' has attractive, user-friendly user interfaces.

While many might spend time, money and energy from buying books, this system is able to reduce all this matter. The service provided is not only accurate, but at the same time it's free. The system will be able to access the information needed for much, much lesser time spent from flipping through books.

Lastly, the objective of the system is to provide service to a multi-racial country like Malaysia. It will be a one-stop service for all. As we know, in a country like Malaysia, a lot of children come from mixed parentage. Choosing the right name to blend with each other can be difficult at times. This system will accommodate not only English names,

but instead all four ethnic names; which are Malay, Chinese and Indian baby names. As in the existing system, many focus on one specific ethnic or names that are not suitable for Malaysians.

1.3 SYSTEM SCOPE.

'BabySpot' carries out certain functions. The main function of the system is to search the database for the meaning of a name or to know its origins. The searching of names can be in two forms. Either the user can straight go ahead with the searching or the second, browse through the database until they fancy a nice name for their baby.

In the main page, the user is prompted to choose whether to search or browse. If they select search, they will be able to input a name for a database search. However, if they select browse, they will be prompted in another user screen to select either boy or girl's name. In that selection also they will have to choose from the either four categories; that are English, Malay, Chinese or Indian names.

The print option is left up to the user as to whether they would like to have a printout copy of the selected name. Besides all the searching of names, this system provides other features such as user feedback, a brief background on 'BabySpot', 'suggest-a-name and baby horoscope.

This system is targeted more towards parents and keen users. Basically, this system will provide all the services to the parents and user as stated, with more of the Malaysian touch. Besides this, there will be an administrator (s) to maintain and perform housekeeping to the system.

As mentioned earlier, this system is divided into two main parts; the public user and administration module. Each of this module specifies the functions of the user and the administration module.

User functions.

The user has the capability only to search, browse, print and read the file. No modifying, adding, deleting can be done.

Administration module.

The administration module has the authority to carry out updating, adding records, deleting them, modifying and changing password. They also are given access to view user comments and feedback and maintain housekeeping.

1.4 MOTIVATION.

My main motivation in the development of this system is because I like to know what lies in a name. Is it really true that a person is what his or her name says? It is definitely a thought to ponder. This has been the factor behind the development of this project.

Besides, I feel that the existing systems available on the Internet do not provide a one-stop service for multi-racial countries. Different database is provided for each race. But when we think of it, supposing a Chinese baby is born, the obvious is that he will be given a Chinese name. Then again, if he is born in Christian family, no doubt that his family will give him an English name too. BabySpot will be able to provide users baby name for all race without having them to search all over for baby names.

1.5 PROJECT SCHEDULE.

In the first part in the development of this system, I will focus with the Literature review, System analysis and methodology and System design. Each of this section will take not more than two weeks to complete. The later sections will begin in May. Figure 1.1 lists very briefly the project schedule for BabySpot.

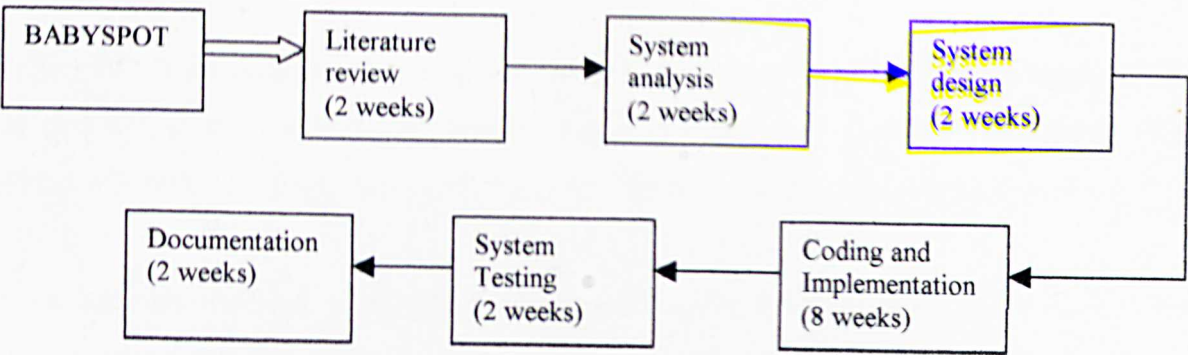


Figure 1.1 Project schedule.

CHAPTER TWO LITERATURE REVIEW

2.1 INTRODUCTION

"BabySpot" is an online service for choosing baby names. Although users might think that this online service will only benefit future parents, they definitely mistaken. This service will infatti help user to search the actual meaning and origins of their name.

In the existing websites available today, mostly cater for one category of race. This means that the websites available cater for only one specific race. "BabySpot" is different as it will take into consideration multi-racial countries like Malaysia. It is a one-stop point for parents from all race.

CHAPTER TWO

My main reason to develop this system is because of the inconvenience that is available from the existing systems. Many existing systems are unable to supply information needed by a certain user. For example, to search for a Chinese name, user will have to access a website relating to Chinese baby names, and to search the other three. With this system, it will be possible to access information from all three website. Convenience, simply and easy. These are the main factors to be put into consideration when developing a website.

Besides this factor, the reason in the development of this system is merely because I have fascination to the origins and meanings of names. Take for an example my name "Eun Andriana Jacob". Eun, is of Chinese and is of Irish origin, Andriana means "warrior", and is of Italian origin. Jacob is a name from the Holy Bible. I am very keen on knowing such meanings, and since how many centuries ago have these names been in use.

Finding for a meaning of names from books can be very dull. There are no appealing, attractive designs to get the users' attention. Everything is straight forward and there is a price to pay for a book. Buying a book for baby's name in Malaysia cost nothing less than RM10.

CHAPTER TWO LITERATURE REVIEW.

2.1 INTRODUCTION.

“BabySpot” is an online service for choosing baby names. Although users might think that this online service will only benefit future parents, they definitely mistaken. This service will infact help user to search the actual meaning and origins of their name.

In the existing websites available today, mostly cater for one category of race. This means that the websites available cater for only one specific race. “BabySpot” is different as it will take into consideration multi-racial countries like Malaysia. It is a one-stop point for parent from all races and religion.

My main reason to develop this system is because of the inadequate information available from the existing systems. Many existing systems are unable to supply information needed by a certain user. For example, to search for a Chinese name, we will have to access a website relating to Chinese baby names, and so on for the other three. With this system, it will be possible to gain information from the same website. Convenience , simply and easy.-These are the main factors to be put into consideration when developing a website.

Besides this factor, the reason to the development of this system is merely because I have fascination in the origins and meanings of names. Take for an example my name: Erin Andreana Jacob. Erin means pure, and is of Irish origins, Andreana means womanly, and is of Italian origin, whilst Jacob is a name from the Holy Bible. I am very keen on knowing such meanings and since how many centuries ago have these names been in use.

Finding for a meaning of names from books can be very dull. There are no colourful, attractive designs to get the users attention. Everything is straight forward and there is a price to pay for a book. Buying a book for baby’s name in Malaysia cost nothing less than RM30.

2.2 FACTORS IN NAMING A BABY.

One of the most important things a parent will ever do for their child is choosing his or her name. Their child's name will be a reflection of character and identity. A well-chosen name will be a source of pride for their child's lifetime. There are several factors to consider when choosing a baby name. The following hints should prove useful for parents who are searching for the perfect name for their baby.

- **Sound and compatibility.** How a baby's name sounds when it's said aloud is one of the most essential things to think about. Often, longer first names work better with shorter last names, and vice versa ("Siti Khatijah, Sri Kumaran"). Combining a first name that ends in a vowel with a last name that starts with a vowel generally isn't the best choice. This is because the names tend to run together ("eg. Eva Anderson"). Avoid first names that rhyme with the last name.
- **Uniqueness.** An unusual name has the advantage of making the bearer stand out from the crowd. On the other hand, a name no one has heard of and few can pronounce can bring attention a child would rather avoid. One way of striking a balance is to choose a familiar first name if the child's last name is unusual, and vice versa. If your son's last name will be Smith, you might want to consider something with more unique than Joe for his first name. But if his last name is Aytrivbsoan, then Joe might be preferable to, say, Archimedes as a given name.
- **Relatives and friends.** Many parents choose to name their babies after a grandparent, other relative, or close friend. This option can provide a good pool of names to consider. Parents should never let anyone pressure them into a name they don't like.
- **Ancestry and heritage.** A child's heritage is an essential part of who she is. Religious preference may steer a parent toward a certain category of names. If your name doesn't meet the family's traditional requirements, consider using it as a middle name. However, the Chinese community has strict rules that their baby follow the paternal family name. Therefore, if the paternal family's name is Wong and the maternal family's name is Lee, the baby has to be named Wong.

- **Meaning.** No one is likely to treat your daughter Ingrid differently because her name means "hero's daughter," but the derivation of a baby's name is something parents may want to think about. Chinese families have to be very careful in naming their baby as one pronunciation in one dialect might mean something else in another dialect.

- **Initials and nicknames.** People, especially kids, can be cruel when it comes to nicknames, so try to anticipate any potentially embarrassing ones. Zachary Ian Thomas will more than likely get a lot of teasing; Zachary Edward Thomas probably won't.

Sound: The general sound and rhythm of the name is very important. Some names go well with each other and some don't.

Uniqueness: It is hard to find the perfect balance between finding a name that is unique and special but doesn't seem too strange. There are benefits and disadvantages to both having a common name and a very unique name. Common names are easily spelled and recognized. Having a unique name, however, may make a child stand out and feel extra special.

Popularity: Baby names tend to follow trends and cycles of popularity. Aside from the extremely common names that have always been popular, names that are currently very trendy are likely to go out of style. Some parents look for extremely rare names to avoid the problem of overly popular names, while still others try to find a name that is fairly popular, but not overly trendy.

Origin: There are no rules stating that a person can choose a name only from their own ethnic origin. Many parents are now finding beautiful and interesting baby names from a wide variety of ethnic and historical origins. However, the right name from their own heritage provides an added source of identity for your child.

Spelling and Pronunciation: Many unusual names are difficult to spell or pronounce because people are unfamiliar with them. This does not necessarily mean that they should not choose a unique name on the basis that it could be difficult to spell or pronounce, but when ranking names, it is a factor to consider. For example, an Indian name, Gayathri can also be spelt as Gayatri, or Ghayathri.

Gender Identification: Some people think it is very important that a name has a clear gender identification, while others find it less important. Many names are ambiguous. Such names are Vivian, Renee, etc.

2.3 COMPARISON WITH OTHER SYSTEMS.

During my research on this topic, I had the chance of comparing the existing system available on the Internet. I had taken each website for each ethnic and compared it with the system that I was to develop.

- <http://babynames.pregnancy.yahoo.com/bfname>

This website for the English baby names is definitely colourful and attractive. However, it only provided the meaning of English baby names only. There is too much of information that might just confuse the user of the website.

- <http://www.indiaexpress.com/specials/babynames/>

This website caters for Indian baby names. The main page was not very attractive with too many alphabets linking to the names. The main page was just too cluttered with information causing the user to be distracted from the original reason. The screens are plain and dull. Like the same as the previous website, this site only caters for the Indian names. However, the names as well as the origins of the names are correctly given.

- <http://www.kalabarians.com/female/chineseef.htm>

This website is to find the meaning of female Chinese baby names. Although the screen is quite attractive, the main screen itself is filled with the names. When selected the website will give a lengthy description of the person's name. Too much of unwanted information is given, though not necessary.

- <http://www.maxpages.com/babynames>

This is basically the only Islamic baby names available on the Internet as of the time this literature review was done. Many websites that I had visited were under construction or rerouted to another server and were down. This website is very straight forward and simple. Therefore, it is not that attractive and colourful. However, it gave the precise meaning in Islam.

Comparing all the mentioned system above, my system will definitely fill in all the obvious loops. For one, as mentioned earlier, it will be a one-stop search for all the baby names. Unlike the existing ones, where to locate different race names, different databases had to be accessed, BabySpot will provide all races baby names. It will be very convenient. Not only that, the system will be user-friendly with attractive background. The features that are provided are such as searching, browsing, printing, feedback page, baby horoscope and many more.

I can assure that this system will definitely find its heart to Malaysian users, especially when the need to find a baby name arises.

2.4 THE REASON FOR USING WEB APPLICATIONS.

There are a few reasons as to why a web application is much a better choice over other alternatives.

1. No installation required- The main advantage of using a web application over typical applications is that the users are not required to install any files on their computer. On top of that they will be able to access the application at any location and anytime as long as they have the access to the Internet.
2. Multimedia presentation- Web application allows presentation of information in a multimedia style. This medium allows features that are simply not possible in other medium and is more appealing to users.
3. Higher performance- With the use of web applications, processing information can be performed more efficiently. This way, developers are able to modify the application without having to distribute updates to all users.

2.5 WEB SERVER.

The World Wide Web (WWW) is truly an intergalactic client/server application. This new model of client/server consist of the thin, portable, universal clients that talk to server. A web server returns documents when clients asks for them and also organizes pages of a web site. The client/server communicate using a protocol called HTTP. This protocol defines a simple set of commands; which are parameters passed as strings, with

no provision for typed data. The web is being extended to provide more interactive forms of client/server computing.

Considerations in choosing a web server include how well it works with the operating system and other servers, its ability to handle server-side programming, publishing and site building tools that may come with it.

When using a web application there are two types of programming language used; that is the client-side programming and the server-side programming. A script that is interpreted by the browser is called the client-side script. It is a set of instructions, but not processed by the web server. The instructions are sent to the browser and is processed by the browser. The results are then displayed by the browser on the monitor. JavaScript and VB Script are the examples of client-side programming.

Meanwhile, ASP is the example for server-side programming. A script that is interpreted by the web server is called a server-side script. It is a set of instructions that is processed by the server and generates HTML. The resulting HTML is sent as part of the HTTP response to the browser

To host and manual the system, the server computer needs to have various supporting software installed. Table 2.1 below lists all of the required items.

Software/ Components	Descriptions
Windows 2000 Server	Network operating system
Microsoft Internet Information Server (IIS)	Web server service
Active Server Pages (ASP)	Server scripting engine
Microsoft Access 2000	Database
Microsoft Internet Explorer 4.0	Precondition of ASP installation

Table 2.1 Server software requirements

2.6 CONSIDERATION OF DEVELOPMENT AND PROGRAMMING TOOLS.

Besides doing the research on the names, I also had to consider the software I wanted to use to develop this online system. This system used a database to store all the names together with their meanings. To link the database to the web-based form, several development tools were considered such as Microsoft Access 2000, Microsoft FrontPage 2000, ASP, HTML, Visual Basic, XML, Java, JavaScript, VBScript and many others.

I have taken the liberty to compare the advantages and disadvantages of these software and programming languages.

Visual basic.

Visual Basic 6 includes many new features, especially in database and Internet areas. Among these are ADO, DHTML applications and WebClasses. Visual Basic 6 incorporates a number of new and advanced features that makes it more powerful. Besides this factor, the development environment has been enhanced to make entering code and designing forms easier. VB 6 is also built with a native code compiler, an improved forms engine, that makes program run faster.

The factor that makes this software stand out is because it can create Multiple Document Interface (MDI) programs which have one main parent form and one or more internal child form.

Java.

Java is a full programming language introduced by Sun Microsystems. The biggest advantage using Java is that it can run on a wide range of platforms. The applications in Java are compiled in a neutral state, which means that they can be ported to many other platforms. Java applets can be embedded in a web page by using the <applet> element. the application enables programmers to create applications that run on any platform.

Unlike VBScript and JavaScript, Java is a full and complete object-oriented programming language, that can be used to write code for processing on the client side, code for processing on the server side, or both.

Active Server Pages (ASP).

ASP provides an extensive server-side platform supporting compile-free, language-independent scripts and ActiveX components. This, coupled with the fact that IIS returns all ASP requests as standard HTML, lets a developer create truly dynamic Web sites and online applications accessible by any browser.

Database access has also been extended in this version of IIS. ActiveX Data Objects (ADO), an ASP component, lets developers access and control data in any ODBC- or OLE DB-compliant database using any ActiveX scripting language. Developers can put a Web front end on almost any legacy database without arcane CGI programming.

To tap into the power of ASP and server-side scripting, IIS includes native scripting engines for VBScript and JScript. Server plug-ins are available for other scripting languages such as Perl, TCL, and REXX.

An ASP page is a document that resides on the web server and that contains a mixture of HTML code and server-side scripts. Such scripts process requests coming from client browsers and can build a response page for that particular client. This is an advantage using ASP as it lets the developer create dynamic HTML pages that be downloaded by any browser that support plain HTML. For this reason, ASP can play an important role in Internet applications, whereas DHTML should be used only in more controlled environments, such company Intranet. ASP technology does not deliver pages with animation and transition effects, rather with it a developer can create pages on the fly that are customized for each client.

Hypertext Markup Language (HTML).

HTML language is just one of the many markup languages created by a meta-language (a template for creating languages) called Standard Generalized Markup Language (SGML). It is relatively a straight-forward language. The main element in HTML's popularity are first its simplicity to learn, because markup languages do not have tricky programming structure to learn such as found in Visual Basic, Java or C++. HTML is usually used to prepare hypertext documents. Secondly, HTML can be automatically generated by many

third party editors so developer do not need to learn HTML to create web pages. Lastly, when a browser comes across a broken line of HTML, it does not throw out an error like most other programming languages would. It would instead skip the broken code and carry on to the next line.

HTML is not designed to be the WYSIWYG word processor, unlike Microsoft Word and WordPerfect. Instead, it requires the user to construct documents with sections of text marked as logical units, such as titles, paragraphs and lists. The most convenient fact about HTML documents is that they can be prepared with a simple text editor, such as the NotePad (Windows PC), TeachText (Macintosh) or vi (Unix workstation).

Dynamic HTML (DHTML).

DHTML was introduced by Microsoft and Netscape in the 4.0 versions of their web browsers. DHTML is a suite of technologies that gives a web designer the ability to add any functions to the web pages as quickly and easy as HTML. DHTML does not rely on plug-ins the visitor might or might not have or does not have complicated programming languages, except maybe a little JavaScript.

For most part, DHTML is created the same way as HTML and requires no special software to produce. Like HTML, DHTML should work with all browsers and on all platforms. DHTML also should be able to enhance the interactivity and visual appeal of the web page. The reason as to why a web page using DHTML is so dynamic is because:

1. it allows the developer to control the HTML displays the web pages content.
2. it also allows the document to react and change with the actions of their web site visitor.
3. it has the ability to exactly position any element in the window and change that position after the document has been loaded.
4. lastly, it can hide and show content as needed.

eXtensible Markup Language (XML).

XML was named as such because it is not a fixed format like HTML. While HTML has a fixed set of tags that the author can use, XML users can create their own tags so that they actually describe the contents of the element.

JavaScript.

There are two main scripting language in use on the client side web pages; Javascript and VBScript. However, Javascript is more widely supported and implemented. Javascript varies greatly between Netscape and Internet Explorer, and in between different versions of the same browser, the only guarantee a developer that their script will be compatible is to test them. JavaScript can be used to construct powerful applications.

The syntax of JavaScript is similar to C language. JavaScript is the product of Netscape Communications and Sun Microsystems Inc.

VB Script.

VB Script was initially created by Microsoft to be a lightweight scripting language to interpret user events triggered with Microsoft Internet Explorer browser. VB Script was actually created from Visual Basic for Application (VBA). The biggest difference between VBA and VB Script, is that VB Script prevents any file access. This is because the primary objective of this scripting language is to prevent malicious intent from harming underlying browser subsystems.

With the introduction of the IIS 3.0 and ASP, VB Script can be executed on the web server. It can be used to create references to control HTML intrinsic objects, ActiveX controls or Java applets. Web pages can now take advantages of functionality not found in the native HTML by enabling VB Script to manage and manipulate the HTML object model. Because VB Script is a subset of VBA, many Microsoft Office products use native VB Script code directly in Office forms.

Microsoft Frontpage 2000.

FrontPage 2000 comes as part of the Microsoft 2000 suite. It is a tool for creating and designing web pages. It offers three views of the web page. The 'normal' tab gives a WYSIWYG (What You See Is What You Get) page creation view, which allows a developer to write pages without having to code the HTML explicitly. The 'HTML' tab allows the developer to code explicitly, thirdly the 'Preview' tab gives a quick view of what the page should look like in the browser.

Frontpage 2000 is a powerful suite of programs that can a developer in designing dynamic, interactive World Wide Web sites. FrontPage Explorer, a feature of FrontPage 2000, makes it easier to organize and maintain numerous files and folders that make up an ever-expanding Web site. FrontPage Editor makes it possible to create and edit HTML with the ease of word processing. With FrontPage 2000, the developer will find that they can switch from edit mode to previewing the page or viewing the source code in a snap. Also, they are able to design tables using drag and drop features; also resize rows and columns quickly, making page layout easier. Text animation and other special effects using Image Composer's sophisticated graphics and animation tools is hardly a complex task. The most interesting factor concerning FrontPage 2000 is its ability to create navigation bars and buttons automatically, without any need for actual programming.

Microsoft Access 2000.

Microsoft Access 2000 provides two different modes. The first is an easy-to-use menu-driven interface that allows the developer issue commands without an in-depth understanding of Access. The second mode is the program mode that allows the developer to store instructions in a Visual Basic program file and execute all of them with one command. An Access application is a coordinated set of database objects; tables, forms, macros, queries, reports and modules that enables a user to maintain the data for a particular set of tasks. It also functions as an customized information system for an organization. Novice users of an Access application do not need to know very much about Microsoft Access to operate an application.

2.7 DATABASE.

Term *database* suffers from many different interpretations. However, to define the term database in short is, it is a self-describing collection of integrated records. Prior to the use of database, the file-processing system was used.

With the database approach, the user interacts with a database application, which in turn interfaces with the DBMS, which accesses the database.

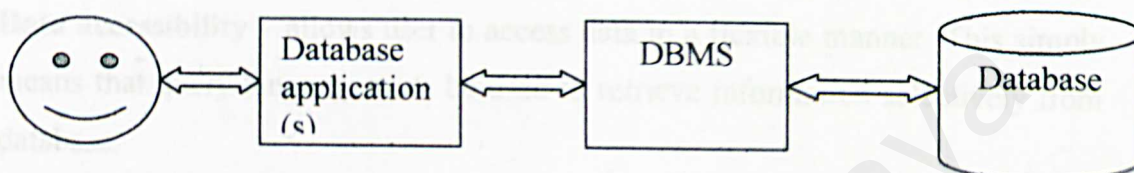


Figure 2.1 Relationships of user, database application, DBMS and database.

With the filing approach, the users of a different departments tend to keep records that are duplicated. For example as in figure 2.2, where we see that the user from the customer processing application will seek information from the customer file and the user from the rental processing application will seek information from the rental file.

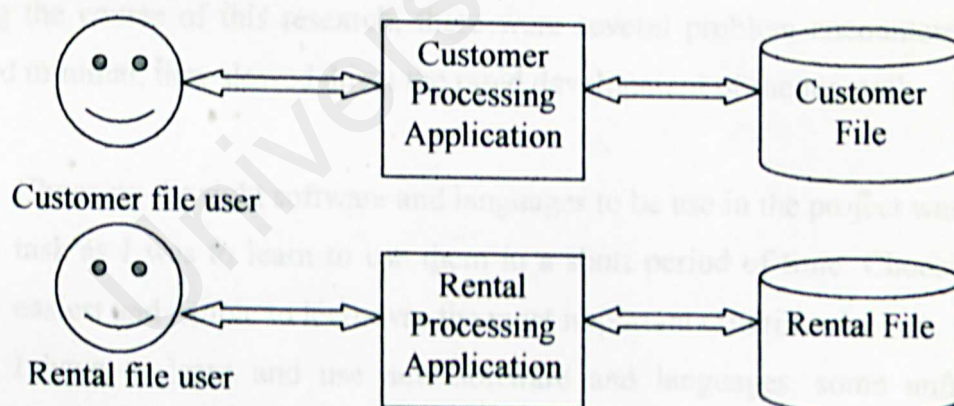


Figure 2.2 Two File Processing Systems.

Benefits of the database approach.

1. **Minimal data redundancy** – data duplication is minimized. By entering data once, this approach conserves disk space as well as reduce data entry time and cost.
2. **Data consistency** – data consistency is eliminated or reduced.
3. **Integrated data** – data is organized into single logical structure. So, it is easy to relate one item of the data to another.
4. **Data sharing** – allows users to share data according to the degree of rights given.
5. **Data accessibility** – allows user to access data in a flexible manner. This simply means that query languages can be used to retrieve information selectively from database.
6. **Eases application development** – new applications can be developed quickly using the existing data. In the traditional approach, data and logic are both combined in the same program.
7. **Uniform security, privacy and integrity controls** – as database is centralized, relatively it is easier to protect data against all kinds of threats; that are accidents or intentional.

2.8 PROBLEMS ENCOUNTERED.

During the course of this research, there were several problem encountered. Although seemed minimal, they slowed down the rapid development of the research.

1. Choosing the right software and languages to be use in the project was not an easy task as I was to learn to use them in a short period of time. Choosing the most easiest and simple to learn was the most important criteria.
2. I have to learn and use new software and languages, some unfamiliar than previously studied. For example for the database, I have to polish up with my Microsoft Access 2000, and FrontPage 2000 for the web pages designing.
3. Reference books were always unavailable at the library due to insufficient copies. Some books were also a few years outdated eg. HTML Sourcebook was published in 1995.

CHAPTER THREE METHODOLOGY AND SYSTEM ANALYSIS

3.1 INTRODUCTION

Methodology explains how and what are the tools, software requirements and software development process used in designing this system. The software process is a set of activities and associated results which produce a software product. A process model is chosen based on the nature of the project and the application, the methods and tools to be used.

CHAPTER THREE

System analysis focused on the development of the whole system. Decisions are made on the development and the system. The system is developed after the system is analyzed and the system is designed. The system is developed after taking into consideration factors relating directly to the system.

Functional and Non-functional requirements of the system are also outlined and taken into consideration. Firstly the hardware requirements are outlined, the performance of the system will be laid down.

3.2 INFORMATION GATHERING

Information gathering is not a very simple task. There were a lot of visits to the lecturer and other sources to do research in the course of gathering information for my report, there were several sources that I used.

Search engines

To look for useful websites concerning names and the considered softwares, I had to surf the Internet. They were able to provide me a clearer picture of the research that I was doing. Among the search engines that I had used were:

1. yahoo.com
2. infocerk.com
3. alfabeta.com
4. msn.com
5. excite.com

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System analysis focused on the development of the whole system. Decisions were made on the development model to follow depending on the system characteristics itself. Here after further and intense research done, the development tool were finally decided after taking into consideration factors relating directly to the system.

Functional and Non-functional requirements of the system were also outlined and taken into consideration. Lastly the hardware requirements to enable the development of the system were listed down.

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1. yahoo.com
2. infoseek.com
3. altavista.com
4. msn.com
5. excite.com

6. hotbot.com
7. catcha.com

Perpustakaan Utama Universiti Malaya.

The main library has a vast amount of books that came in handy while carrying out this report. While mostly were a few years old, there were the new ones that were always in demand. Also the main library served as the main place to use the Internet for free, besides the faculty labs.

Document room.

The document room was a big help in assisting us in getting a more detailed idea on the contents of our Literature Review. From the past examples of the undergraduates at FSKTM, we could narrow down our topics and concentrate on new thesis topics.

3.3 SYSTEM DEVELOPMENT PROCESS.

There is no such thing as a right and wrong system development process. Different system processes decompose these activities in different ways.

In this project, the 'waterfall approach' is used. This model offer a visible means in the making of the development process. This model is named as such because of the cascade from one phase to another (Figure 3.1).

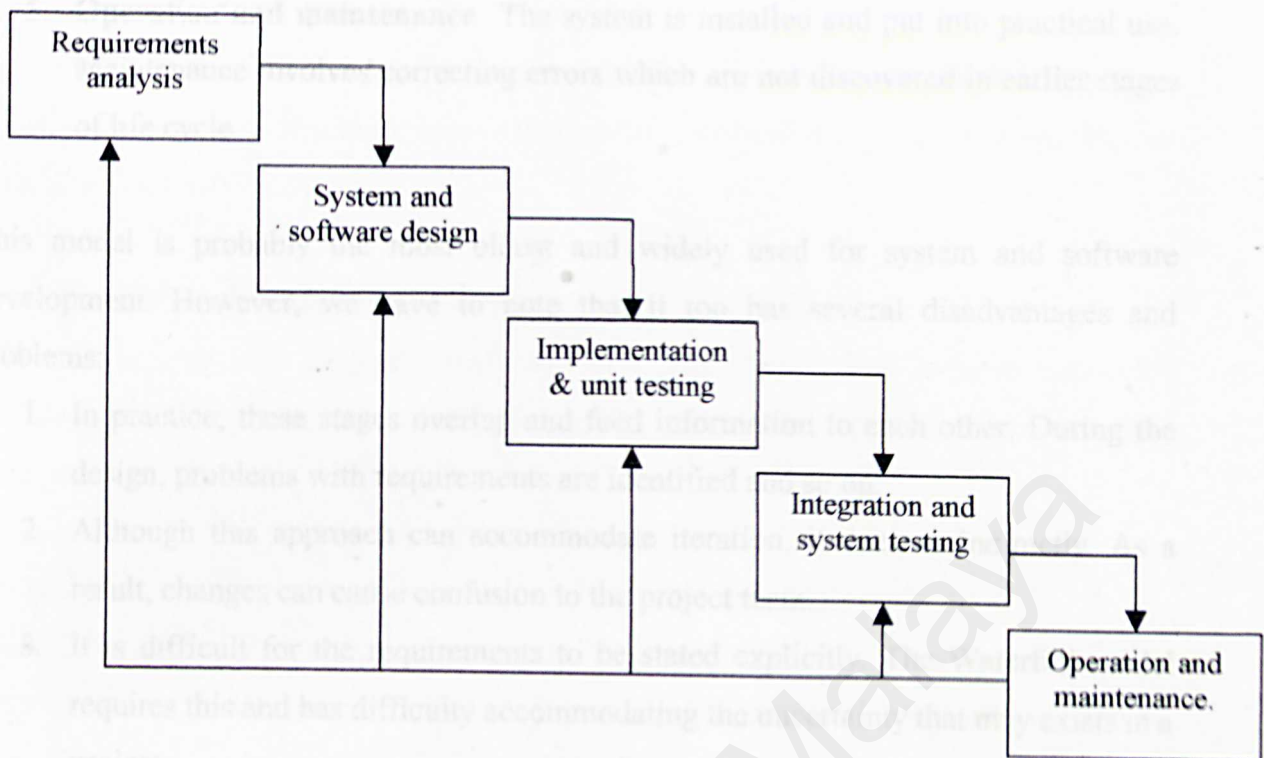


Figure 3.1 The Waterfall Model .

The Waterfall approach is used in the development of this project as the development stages are each completed before moving to the next. This reason makes it more easier for development of the entire system. The main stages of the model map onto the development activities;

1. **Requirement analysis** In this stage, the system's services, constraints and goals are established.
2. **System and software design** Here the system design process partitions the requirements to hardware or software systems. It establishes an overall system architecture. Software design involves representing the software system functions in a form that can be transformed into an executable program.
3. **Implementation and unit testing** At this level, the software design is realized as a set of programs or program units. Unit testing involves verifying that each unit has met its specifications.
4. **Integration and system testing** The individual program units or the programs are integrated and tested as a complete system to ensure every requirements are met.

5. **Operation and maintenance** The system is installed and put into practical use. Maintenance involves correcting errors which are not discovered in earlier stages of life cycle.

This model is probably the most oldest and widely used for system and software development. However, we have to note that it too has several disadvantages and problems:

1. In practice, these stages overlap and feed information to each other. During the design, problems with requirements are identified and so on.
2. Although this approach can accommodate iteration, it does so indirectly. As a result, changes can cause confusion to the project team.
3. It is difficult for the requirements to be stated explicitly. The Waterfall model requires this and has difficulty accommodating the uncertainty that may exists in a project.

3.4 DEVELOPMENT TOOLS.

Windows 2000 Server (Operating system).

Operating system is a software that helps the computer carry out operating tasks such as displaying information on the computer screen and saving data on the disks. Windows 2000 Server is a very stable and robust operating system. It includes Active Directory, a new directory service that unifies the access and management of network and operating system resources, a built-in infrastructure for network monitoring and support for 8-way SMP hardware.

It provides the preemptive multitasking services required for a functional server. It provides excellent support for Windows clients and incorporates the necessary storage protection services required for a reliable server operating system.

Windows 2000 Server package contains Microsoft Internet Information Server which is perfectly compatible with the server computing side to develop the system using ASP.

Microsoft Access 2000 (Database).

I chose to use this software as I have a basic understanding to Access from previous experience. Access is the main software used for database designing as it requires no programming background.

HyperText Markup Language (HTML).

HTML is a very easy language used for web page design that requires not much knowledge. I had not much trouble learning HTML for the development of the BabySpot website.

VB Script.

I found that with the introduction of the IIS 3.0 and ASP, VB Script can be executed on the web server. It can be used to create references to control HTML intrinsic objects, ActiveX controls or Java applets.

Web pages can now take advantages of functionality not found in the native HTML by enabling VB Script to manage and manipulate the HTML object model. Because VB Script is a subset of VBA, many Microsoft Office products use native VB Script code directly in Office forms.

Active Server Pages (ASP).

ASP provides the capability for the web server to perform application logic and then deliver standard HTML to client browser. With ASP, scripts can deliver client-side scripts such as VBScript and Javascript to be executed on the client's browser. The reason I found that ASP was simple to use was because I could create ASP in NotePad.

There are only two set back using ASP, which is Asp only runs on the Microsoft platform using IIS as a web application server. Secondly, is that ASP requires the developer to have some experience and programming skills.

Microsoft Frontpage 2000 (Web page design).

From what I understand, using FrontPage 2000 requires no previous programming experience. Now, this factor has definitely been the main reason I choose to use for the development of my web site.

3.5 HARDWARE REQUIREMENTS.

- Server with Pentium 166 MHz or higher Processor.
- 32 MB Ram or higher.
- 2.1 GB hard disk.
- Internet Explorer ready.
- Monitor capable of achieving 800 x 600 resolution.
- Mouse.

3.6 FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS.

The functional requirements describe the services provided for the user by this system. It also should state how would the system react to particular inputs and how should the system behave in particular situations. The non-functional requirements concentrate on the constraints on the services or the functions offered by the system. They could include timing constraints, development process constraints, standards and so forth.

In the on-line system proposed, the functional and non-functional requirements are listed as below.

No.	Services and function	Description	Module.
1.	Maintenance of records and storage	Authorized users access to input new records or housekeeping in database.	Administration
2.	Adding, deletion, editing, modifying.	Authorized user is able to carry out those tasks to the database.	Administration
3.	Browsing, displaying, searching.	Users are provided with the ability to browse the system to search, either for	Search screen.

		specific data or randomly.	
4.	Printing.	Users of the system has the option to printout, according to their own choice.	Printing.
5.	Feedback.	Users are able to give their comments or suggestions on the whole system.	Feedback.

Table 3.1 Functional requirements.

Non-functional requirements.

1. **Reliability** This simply means that the system does not produce dangerous or costly failures when it is used in a reasonable manner. BabySpot is developed to be reliable as it will undergo a series of tests before being fully used.
2. **Maintainability** By referring to maintenance, it means that the system can be easily understood, corrected, adapted or enhanced. It is a degree to which architectural, data and procedural design can be extended. BabySpot is a web-based system database that will be easily maintain by the administration.
3. **Response time** This refer to the amount of time taken for the system to react to a user or administration request. BabySpot response time will be minimized as little as possible to ensure that users are not irritated by slow response.
4. **Robustness** Refers to the quality that causes the system to be able to handle or at least avoid disaster in the case of unexpected data.
5. **User-friendliness** This refers to the ability of the system to be able to reach out the users, which ever level. A user-friendly system gains users trust for its simplicity and incomplexity. BabySpot will have user-friendly screens that even novice users will have no problems browsing. The home screen will have a main screen menu to enable users to proceed to the selected screens.

3.7 STRUCTURED DESIGN.

Structured design is the methodology used by software engineers to analyze data processing system that will be converted fully or partially into a computer program. With structured design, we can create an abstract model of the system to comprehend the

system and organise it into an efficient, understandable design. Structured design starts with a data flow diagram.

Data flow diagram (DFD) are a method of analysing how data flows and is processed within an application. Data flow is the flow of data from one element in a data flow diagram to another. It is not a process in any way.

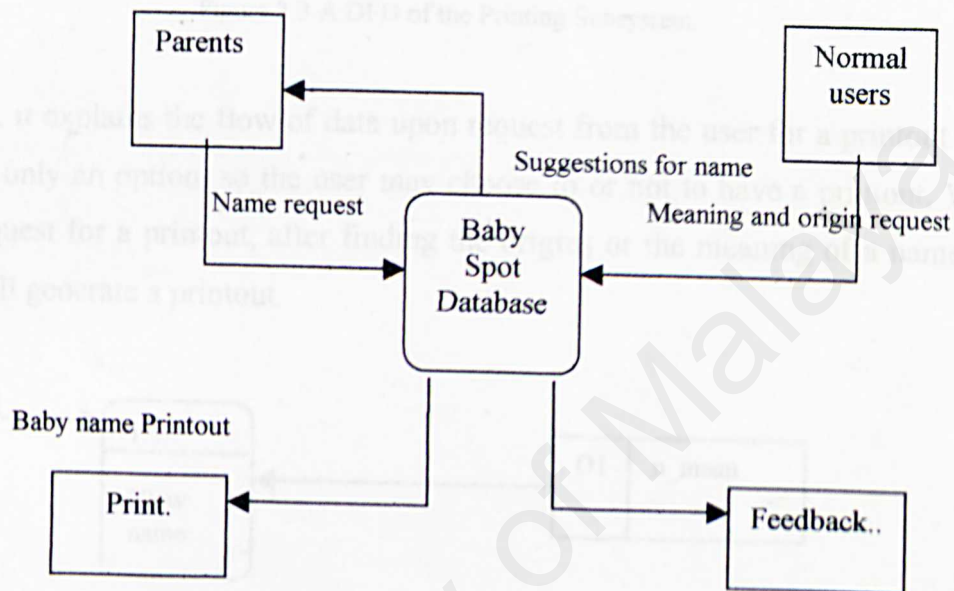


Figure 3.2 A context level flow diagram for the system.

Figure 3.2 above explains briefly how the data flow from the database upon request from users. The users are given the option to printout the meaning of the name based on their choice or to suggest or give their comments on the services.

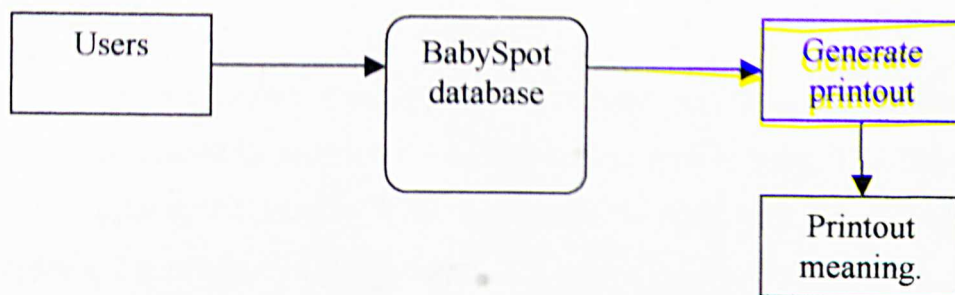


Figure 3.3 A DFD of the Printing Subsystem.

In Figure 3.3, it explains the flow of data upon request from the user for a printout. This subsystem is only an option, so the user may choose to or not to have a printout. When there is a request for a printout, after finding the origins or the meaning of a name, the subsystem will generate a printout.

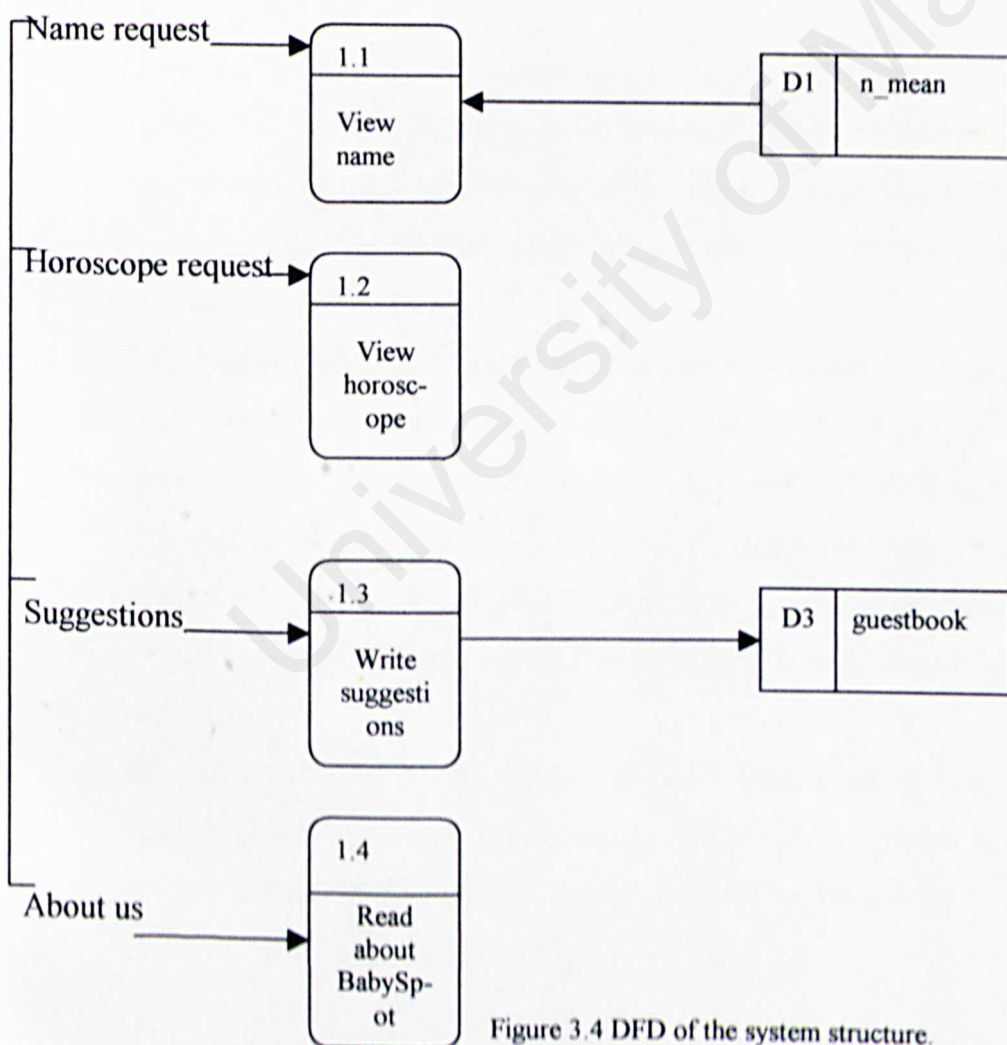


Figure 3.4 DFD of the system structure.

CHAPTER 4: SYSTEM DESIGN

4.1 INTRODUCTION

System design is both a process and a model. The design process is a sequence of steps that enable the developer to describe all aspects of the system built. The design model begins by representing the facility of the system to be built, and slowly refines it to provide guidance for constructing each detail.

The design must implement all of the explicit requirements contained in the analysis model, and it must accommodate all of the implicit requirements desired by the user. Besides that, the design should also be designed for those who will maintain the code, do testing and debugging support the system. The design should provide a complete picture of the system, addressing the data, functional and behavioral domains from an implementation perspective.

Basic design principles enable a developer to navigate the design process for better understanding. Among the good set of basic principles are listed below:

- ✓ The design process should not suffer from tunnel vision. A good developer should consider alternative approaches based on the requirements of the problem.
- ✓ The design should be traceable to the analysis model. Because a single element of the design model often refers to multiple requirements, it is necessary to have a means for checking that the requirements have been satisfied by the design model.
- ✓ The design should reinvent the wheel. Systems are constructed using a set of design patterns, many of which have been encountered before. Design time should be invested in identifying truly new ideas and integrating those parts that already exist.
- ✓ The design should exhibit uniformity and integration. A design is uniform if it appears that one person developed the entire system. Rules of style should be defined before design work begins. A design is integrated if care is taken in defining interfaces between design components.

CHAPTER 4 SYSTEM DESIGN.

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- ✓ The design should be constructed to accommodate change. Well-designed system should be able to accommodate unusual circumstances.

4.2 DATABASE DESIGN.

Data storage is considered to be the heart of an information system. The general objectives in the design of a data storage are listed below:

- Purposeful information retrieval.
- Efficient data storage.
- Data availability.
- Efficient updating and retrieval.
- Data integrity.

There are two approaches to the storage of data; that is to store data in individual files, each unique to a particular application and to build a database. Databases are not merely a collection of files. Instead it is a central source of data meant to be shared by many users for a variety of applications.

The heart of a database is the DBMS (database management system), which allows the creation, modification and updating of the database, the retrieval of data and generation of report. The database administrator is the person to ensure the database meets its objectives.

The database schema defines a database's structure, its tables, relationships, domains, and business rules. A database is a design, the foundation on which the database is built. Once the schema has been designed, the next step is creating the database tables using the DBMS's tables creation tools. Table 4.1 shows one of the many table involved in the system, that is the database administrator table.

Field name	Data type	Description
UserID	Text	A specific userID for each administrator of the database.
Loginame	Text	Administrator login name.
Pword	Text	Password is needed to access the database.
Username	Text	Administrator full name.
Userlog	Memo	Administrator own log.

Table 4.1 Example of the database administrator table.

4.2.1 DATABASE DEVELOPMENT PROCESS.

In order to built an effective database and related applications, the developer must become thoroughly familiar with the users' model. In relation to the BabySpot database, before pursuing technical problems, I had to first select all the features I wanted to include, who were the users and so on. This familiarity was obtained early in the development process by gathering information, either by interviewing prospective users, using the Internet and library.

A general strategy was used for developing the BabySpot database, that is the **Top-down development**. This approach proceeds from the general to specific. It begins with a study of the strategic goals of the system, the means by which those goals can be accomplished, the information requirements that must be satisfied to reach those goals and the system necessary to provide that information. By using this high-level model in my proposed system, will make it easier to work progressively downward towards more detailed descriptions and models.

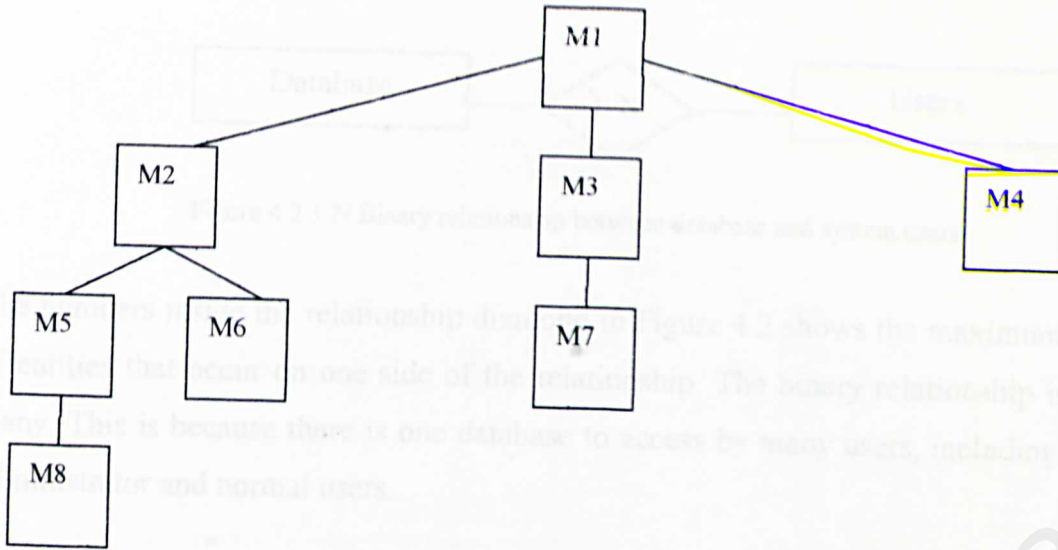


Figure 4.1 Top-down development.

Referring to Figure 4.1, using the **Top-down development**, the module subordinate to the main control is incorporated into the structure either a depth-first or breadth-first. Selecting depth-first integration, M1, M2 and M5 would be constructed and integrated first. Then, M8 or if necessary, M6 will be integrated. Next, the central and right-hand control paths are built. Breadth-first integration incorporates all components directly subordinate at each level, moving across the structure horizontally. From the figure, M2, M3 and M4 would be integrated first, followed by M5, M6 and so on.

4.2.2 DATA MODELLING.

Data modeling is the process of creating a representation of the user's view of the data. It is the most important task in the development of the effective database application.

An entity is something that can be identified in the user's work environment for the users to track. These entities can be explained better in its association in another relationship. In the BabySpot database, the relationship among the database and the user of the system is relationship of degree 2 and often referred to as binary relationships.



Figure 4.2 1:N Binary relationship between database and system users.

The numbers inside the relationship diamond in Figure 4.2 shows the maximum number of entities that occur on one side of the relationship. The binary relationship is one-to-many. This is because there is one database to access by many users, including parents, administrator and normal users.

4.3 ARCHITECHTURE DESIGN.

Today, effective system architecture and its explicit representation and design have become dominant themes in software and systems engineering. What is architecture? Architecture is the way in which the components of the system are integrated to form a cohesive whole. It is the degree to which the system meets its stated purpose and satisfies the user needs. It also means reducing the risks associated with the construction of the system.

Why is architecture design important? First, with architecture design, representation are an communication between all parties interested in the development of the system. Secondly, the architecture highlights early design decisions that will have a profound impact on all software and systems engineering work that follows and as important on the ultimate success of the system as an operational entity. Lastly, architecture constitutes a relatively small , intellectually understandable model of how the system is structured and how its components work together.

Architectural design model and architectural patterns contained within it are transferable. This simply means that the architectural design can be applied to the design of other systems and represent a set of abstractions that enable system developers to describe architecture in a predictable method.

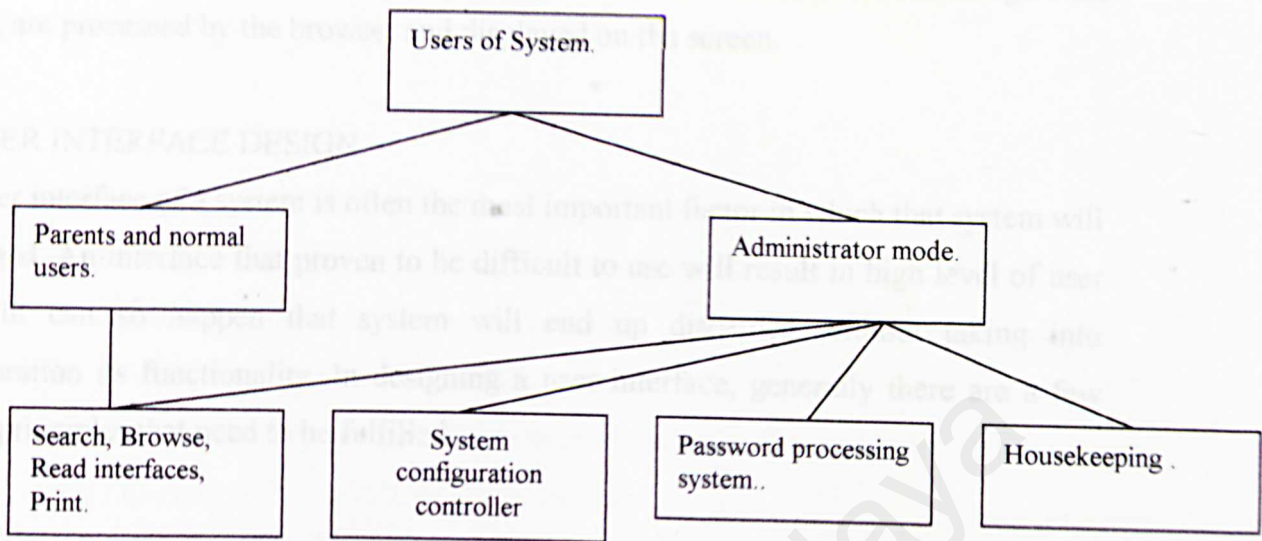


Figure 4.3 BabySpot architecture design.

Figure 4.3 depicts the system’s architecture design. The users of the system is generally divided into two main categories, that is the normal user; e.g.parents, Internet users and the administrator module. The normal users have limited function to the system. However, the authorised administrator has the access to carry out certain function relating to the maintenance of the system.

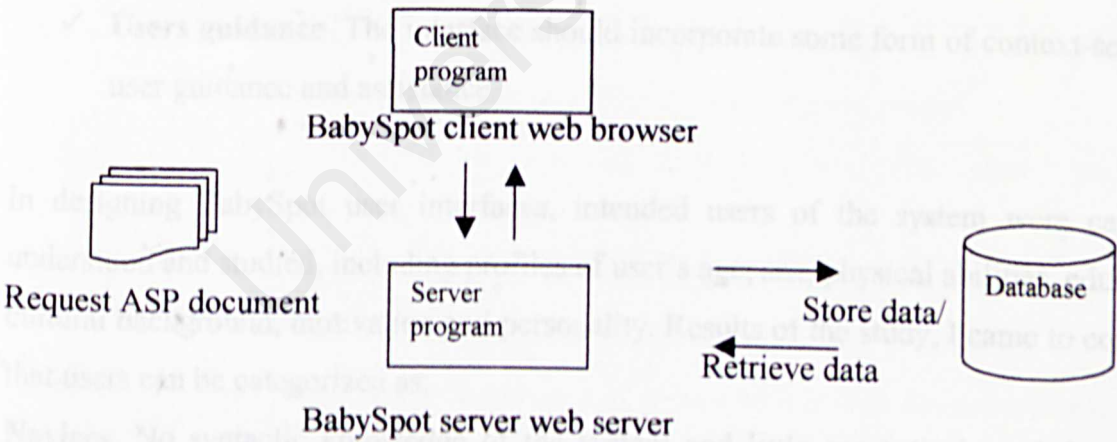


Figure 4.4 Babyspot Database Architecture

Figure 4.4 depicts the database architecture of the web site. The database is where all the names and the meaning are stored and retrieved. When a request is made by a user, the

server-side script will gain the data from the database and generates the resulting HTML. The results are sent as response to the browser. The results or rather the meaning of the names, are processed by the browser and displayed on the screen.

4.4 USER INTERFACE DESIGN.

The user interface of a system is often the most important factor in which that system will be judged. An interface that proven to be difficult to use will result in high level of user error. In can so happen that system will end up discarded without taking into consideration its functionality. In designing a user interface, generally there are a few design principles that need to be fulfilled.

- ✓ **User familiarity** The interface should use terms and concepts which are drawn from the experience of the anticipated class of user.
- ✓ **Consistency** The interface should be consistent in that comparable operations should be activated in the same way.
- ✓ **Minimal surprise** Users should never be surprised by the behaviour of the system.
- ✓ **Recoverability** The interface should include mechanisms to allow user to recover from their errors.
- ✓ **Users guidance** The interface should incorporate some form of context-sensitive user guidance and assistance.

In designing BabySpot user interfaces, intended users of the system were carefully understood and studied, including profiles of user's age, sex, physical abilities, education, cultural background, motivation and personality. Results of the study, I came to conclude that users can be categorized as:

Novices. No syntactic knowledge of the system and little semantic knowledge of the application or computer usage in general.

Knowledgeable, intermittent users. Reasonable semantic knowledge of the application but relatively low recall of syntactic information necessary to use the interface.

Knowledgeable, frequent users. Good semantic and syntactic knowledge that often leads to the ‘power-user syndrome’; that is individuals who look for shortcuts and abbreviated modes of interaction.

4.4.1 GRAPHICAL USER INTERFACE.

GUI (Graphical User Interface) is not something uncommon anymore. They are available on all PCs, Apple computers and Unix workstations. Table 4.2 depicts the principle characteristics of GUI. The advantages of GUI are:

- 1. They are relatively easy to learn. Users with no computing experience can learn to use the interface after brief exposure or training.
- 2. The user has multiple screens for the system interaction. Switching from one to another is possible without losing sight of information generated during the first task.
- 3. Fast, full-screen interaction is possible with immediate access to anywhere on the screen.

Characteristics	Description
Windows	Multiple windows allow different information to be displayed simultaneously on the user’s screen.
Icons	Icons represent different types of information. On some systems, icons represent files, others, icons represent processes.
Menus	Commands are selected from a menu rather than typed in a command language.
Pointing	A pointing device such as the mouse is used for selecting choices from a menu or indicating item of interest in a window.
Graphics	Graphical elements can be mixed with text on the same display.

Table 4.2 The characteristics of GUI.

BabySpot user interface is designed not only to accommodate all level users, but also user-friendly. The main homepage is designed to avoid too much of information on one page. The other screens will appear when selected by a user.

Figure 4.5 shows the prototype of the system's main page. When clicked upon specific links the next screen will appear. If the user clicks on the 'Horoscope' link, immediately the page will appear.

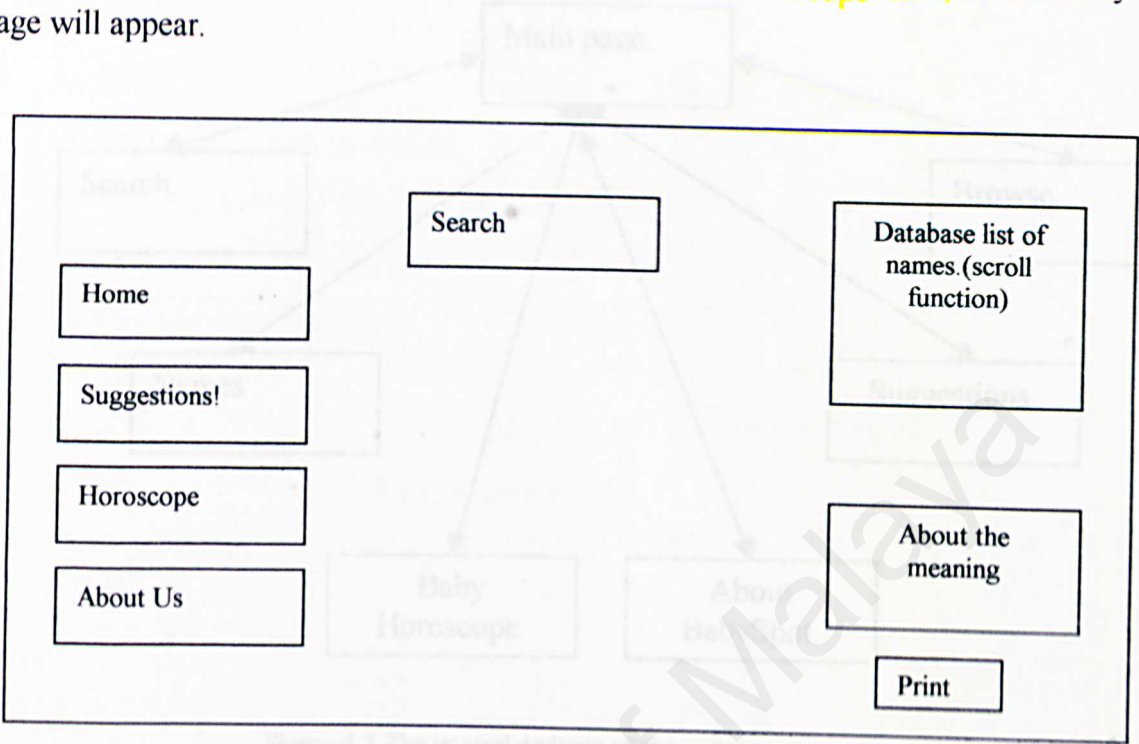


Figure 4.5 BabySpot Main Page.

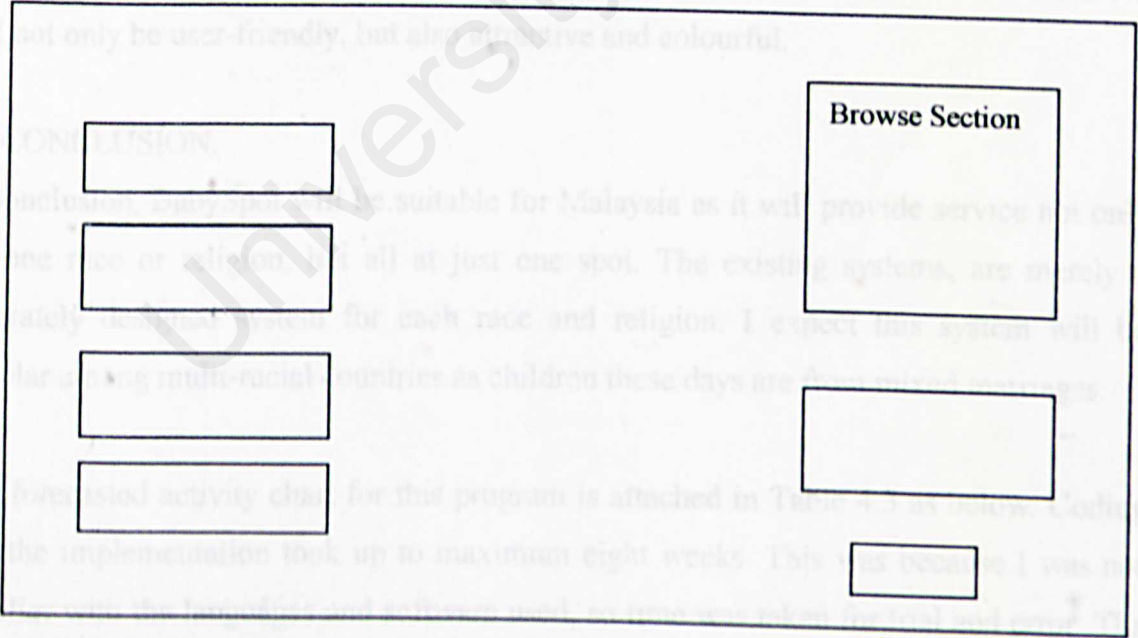


Figure 4.6 Screen shows the 'Browse' options.

4.5 EXPECTED OUTCOME.

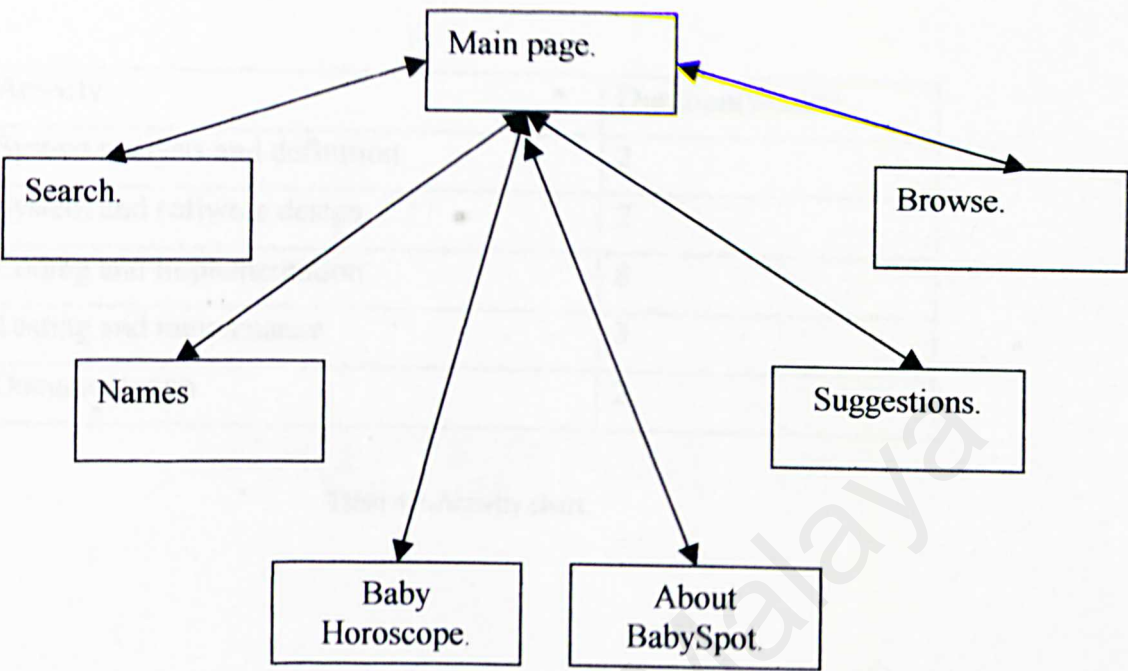


Figure 4.7 The interrelatedness of the system.

The expected outcome of the system is summarized in Figure 4.7. The main page will be interrelated with the six main features of the system. With this also, the user interfaces will not only be user-friendly, but also attractive and colourful.

4.6 CONCLUSION.

In conclusion, BabySpot will be suitable for Malaysia as it will provide service not only for one race or religion, but all at just one spot. The existing systems, are merely a separately designed system for each race and religion. I expect this system will be popular among multi-racial countries as children these days are from mixed marriages.

The forecasted activity chart for this program is attached in Table 4.3 as below. Coding and the implementation took up to maximum eight weeks. This was because I was not familiar with the languages and software used, so time was taken for trial and error. The system analysis and definition and as well as the system and software design had been completed in the beginning of April. The second part which was the coding phase and so

on began in May. The coding took up two months, while the testing took almost three weeks to complete due to minor problems.

Activity	Duration(weeks)
System analysis and definition	2
System and software design	2
Coding and implementation	8
Testing and maintenance	3
Documentation	2

Table 4.3 Activity chart.

CHAPTER 5: SYSTEM IMPLEMENTATION

5.1 INTRODUCTION

Prior to the implementation phase, the coding section had taken place. Due to time and resource limitations, the development tools that I had proposed earlier had some minor adjustments.

It is here in the system implementation stage, the system is realized as a set of programs or programs units. The development tools and programming languages used for the development of this web site were Windows 2000 Server (operating system), HTML (programming language), Microsoft FrontPage 2000 (development tool) and Microsoft Access 2000 (database).

CHAPTER FIVE

To get a better feedback from the users, a survey in the form of a questionnaire was carried out. Initially, about 60 questionnaires were sent out, but only 50 managed to be returned. From the results of the questionnaire, I was able to make a few analysis, which will be presented in the next section.

5.2 SURVEY RESULTS

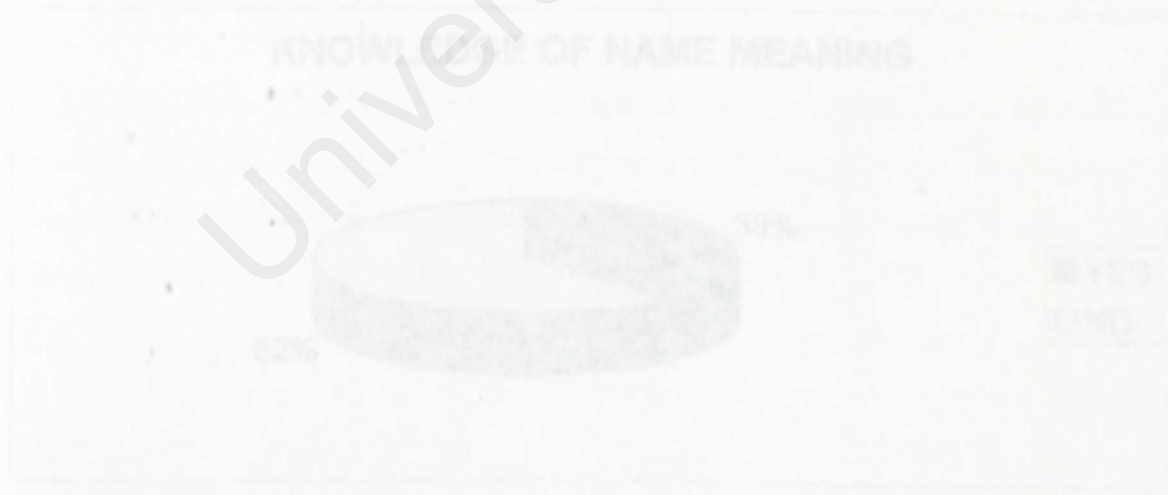


Figure 5.1 Pie chart that shows percentage of users knowing the meaning of their name.

CHAPTER 5 SYSTEM IMPLEMENTATION.

5.1 INTRODUCTION.

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It is here in the system implementation stage, the system is realized as a set of program or programs units. The development tools and programming languages used for the development of this web site were Windows 2000 Server (operating system), HTML (programming language), ASP (web programming language), VB Script (scripting language), Microsoft FrontPage 2000 (development tool) and Microsoft Access 2000 (database).

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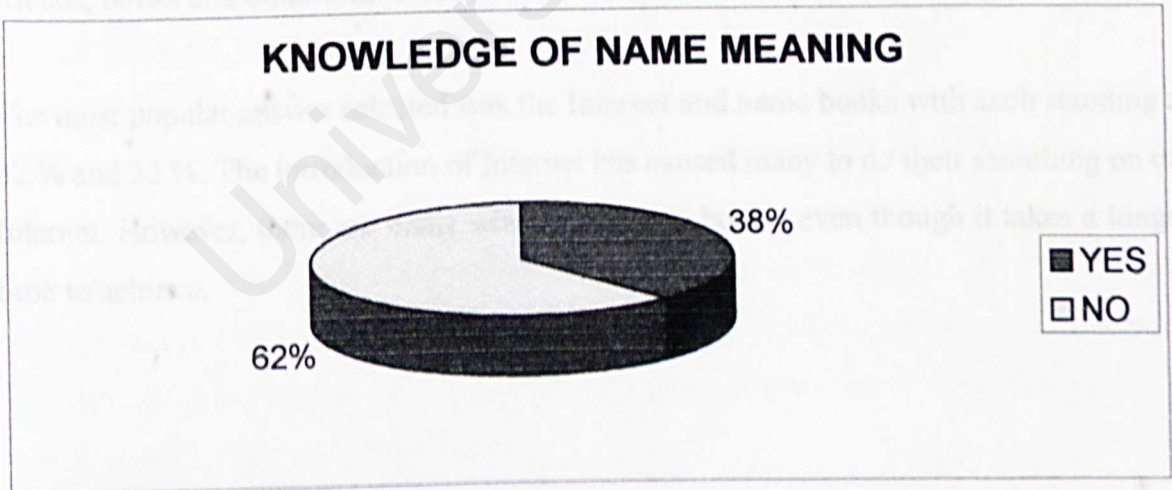


Figure 5.1 Pie chart that shows percentage of users knowing the meaning of their name.

In the pie chart above, I wanted to know whether the public know the meaning of their names. Although they might be curious, many often do not know the meaning of their name. 62 percent of the survey results show that the public are not aware of their name. In fact, even though they think they know the meaning of their name, it turned out to be wrong.

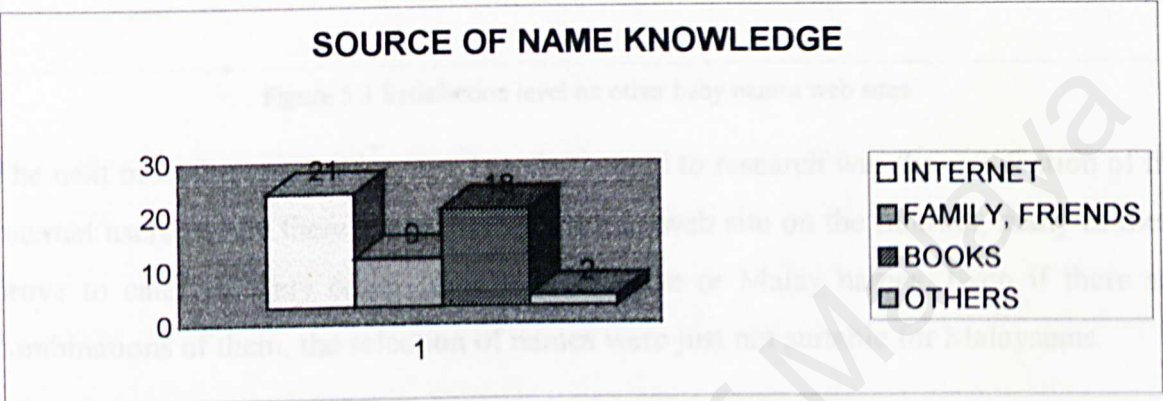


Figure 5.2 The source of name knowledge.

Out of the 50 survey results, 32 percent understood the meaning of their name well. From that point, I found out the various methods for them in searching for the meaning of their name. I had divided that question into four answers; which are the Internet, family and friends, books and other sources, such as the television.

The most popular answer selected was the Internet and name books with each standing at 42 % and 32 %. The introduction of Internet has caused many to do their searching on the Internet. However, there are many who still rely on books, even though it takes a longer time to achieve.

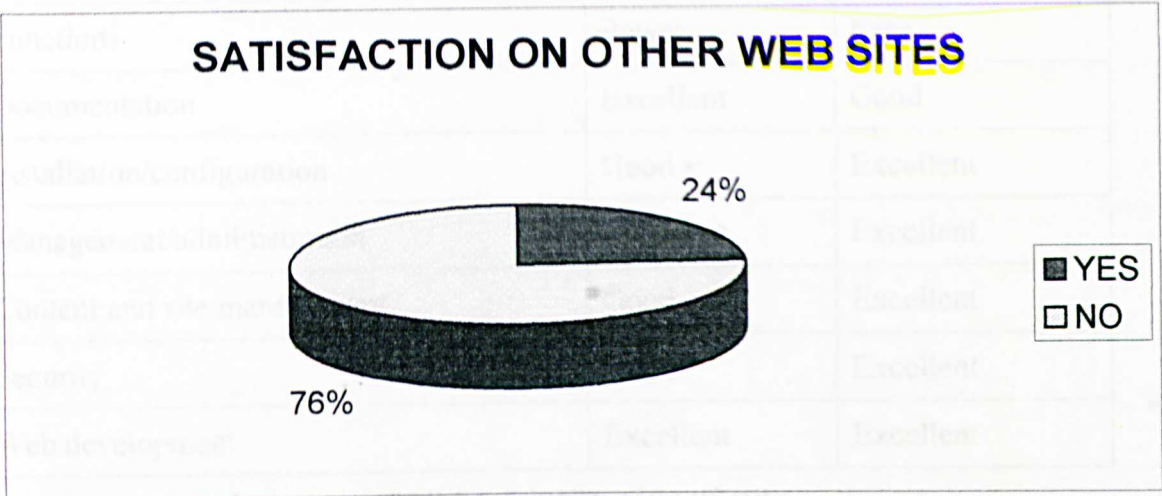


Figure 5.3 Satisfaction level on other baby names web sites

The next most important thing was I really wanted to research was the satisfaction of the Internet users. While there are many baby names web site on the Internet, many of them prove to cater for only either English or Chinese or Malay names. Even if there are combinations of them, the selection of names were just not suitable for Malaysians.

As the pie chart shows, only 24 percent of the users are satisfied with the service given to them on baby names. Among the reason of their dissatisfactory is as listed above and above all, Malaysians felt that the web site were not suitable for Malaysian born baby names.

5.3 MICROSOFT INTERNET INFORMATION SERVER (IIS).

Microsoft Internet Information Server(IIS) 3.0 is a comprehensive solution that will help Windows 2000 Server because it accommodates for both small and large web sites. IIS 3.0 comes with powerful extras, including Active Server Pages for building dynamic Web pages, Crystal Reports for custom reporting, Microsoft FrontPage 2000 for site management, Index Server for advanced searching, and NetShow for on-demand multimedia. On top of that, IIS is available for free as a download or with the purchase of its required OS, Windows 2000 Server.

Functions	Power	Ease
Documentation	Excellent	Good
Installation/configuration	Good	Excellent
Management/administration	Excellent	Excellent
Content and site management	Good	Excellent
Security	Good	Excellent
Web development	Excellent	Excellent

Table 5.1: Suitability of the IIS tasks.

IIS's tight integration with Windows 2000 Server is immediately apparent. IIS uses Windows 2000 Server's User Manager to maintain users and groups, saving a user the trouble of maintaining multiple sets of network and Web site users. IIS also utilizes Windows 2000's Event Viewer and Performance Monitor to view such items as bytes sent per second and current CGI requests.

I also found out that IIS to be an extremely capable performer all around, one that would suit any web site's needs. IIS performed very well serving static pages and handling ISAPI processing on the server side. Depending on the client load, IIS held its own against or outperformed Netscape servers on any platform with static pages and when a user added ISAPI to the mix IIS began to outshine its competitors boding well for its scalability.

IIS comes with three default services: WWW, FTP, and Gopher. Its Internet Service Manager (ISM) application controls these services on this or any other IIS server on the network. For remote administration, you can run an HTML version of ISM from a browser. Mapping logical URLs to directories is straightforward, but IIS can't map to a directory on another server, a feature enterprise handles easily.

IIS truly excels at content and site management by way of the worthy FrontPage 2000. The simple-to-use FrontPage editor lets a user build complex web pages and Active Server Pages without having to write a single line of HTML code. Other gems that come with IIS include Index Server 1.1 and NetShow. Using Index Server, I also can index and

search site content and perform advanced searches on document properties. With the NetShow add-in, a user can deliver audio, video, text, and images to users on low-bandwidth networks using multicasting and data-streaming techniques.

Building on Windows 2000 Server's security prowess, IIS provides additional levels of security. I can restrict access to a directory or URL by user, group, or IP address, or by using Windows 2000's Challenge/Response authentication or SSL 3.0. But unlike Netscape Enterprise Server, IIS cannot limit access by host or domain name.

To obtain IIS 3.0 is not very difficult. We can download it from Microsoft's web site. Both versions are direct upgrades from IIS 2.0, which comes with Windows 2000 Server 4.0. IIS 3.0 proves that being a Webmaster no longer means a user have to be a Unix expert or CGI programmer. Whether you are implementing a small intranet or a large Internet site on a Windows 2000 platform, this intuitive package could be the web server for you.

5.4 SYSTEM DEVELOPMENT ENVIRONMENT.

The development environment refers to the requirements that is acquired by the system feasibility includes the hardware and software specifications. The software specifications are listed in the Table 5.1 below.

Software	Module	Description
Microsoft Windows 2000 Server	System requirement	Operating system
Microsoft Internet Information Server (IIS)	System requirement	Web server
Microsoft Access 2000	System requirement	Database server
Microsoft Frontpage 2000	System development	Web page coding
Internet Explorer 4.0	System development	Web page browsing

Table 5.2 Software specifications

The hardware requirements that fulfilled to the development of this web site was:

- Server with Pentium 166 MHz or higher Processor.
- 32 MB Ram or higher.
- 2.1 GB hard disk.
- Internet Explorer ready with a dual speed 10/100 MBPS Ethernet PCI Adapter.
- Monitor capable of achieving 800 x 600 resolution.
- Mouse.
- Printer.

5.5 PROGRAM CODING.

Coding is the process of translating the design specifications into source codes that the computer can read and process. Without the proper programming standards, this would make source codes very difficult to trace, debug and maintain.

Coding styles refers to the styles and rules that is an important attribute to the source codes. It can determine the intelligence of the program. Among the few programming styles that can be followed are:

1. proper variables or fields naming that does not go against reserved names.
2. standard paragraph indentation for neatness.
3. complex and compound statements are kept as simple as possible to avoid confusion.

As mentioned earlier, the programming language used in the BabySpot were VB Script, Active Server Pages and HTML.

ASP is a technology that allows a user to dynamically generate browser-neutral content using server-side scripting. The code for this scripting can be written in any of several language and is embedded in special tags inside the otherwise-normal HTML code making up a page of content. This heterogeneous scripting is interpreted by the web server only upon the client's request for the content.

In processing the server-side script, VB Script was used. I have listed a sample source code that shows the use of VB Script below.

```
<%@ LANGUAGE= "VBSCRIPT"%>
```

```
<HTML>
```

```
<HEAD>
```

```
<TITLE>Sample</TITLE>
```

```
</HEAD>
```

In designing the main page, HTML was used. The sample source code that was used is as follows.

```
<html>
```

```
<head><title>BabySpot Homepage</title></head>
```

```
<frameset rows="20%,*">
```

```
<frame name="Title" src="Title.htm">
```

```
<frameset cols="22%,*">
```

```
<frame name="Navigator" src="Navigator.htm">
```

```
<frame name="Content" src="Main.asp">
```

```
</frameset>
```

```
<noframes>You need a frames-enabled browser to view this page.</noframes>
```

```
</frameset>
```

```
</html>
```

5.6 SUMMARY.

In the first part of the Thesis; the Literature Review, I done few minor mistakes. At first I was quite confused between server-side scripting and client-side scripting. I got my facts right after that, and was able to continue with the development of the web site.

Developing a web site using ASP was quite difficult, especially for novices like myself. It is a powerful web application development tool. It just took some time for getting used to it.

CHAPTER SIX

University of Malaya

CHAPTER 6 SYSTEM TESTING

6.1 INTRODUCTION

During the testing stage, the programs units or programs are integrated and tested as a complete system to ensure that the software requirements have been met.

Once the source code has been generated, the system must be tested to uncover and correct as many errors as possible. Testing phase is divided into 3 main parts; which are the unit testing, the integrated testing and system testing.

6.2 UNIT TESTING

Unit testing focuses verification of the smallest part of system design. It is to discover errors within the boundary of the program. For example, unit testing can be in the form of testing whether the hyperlink text in the page are working. This can be done by directly clicking it to see if it moves to the right site that is required to open.

6.3 INTEGRATION TESTING

Integration testing is a systematic technique for constructing the program structure while at the same time conducting tests to uncover errors associated with interfacing. The objective is to take a unit tested component and build a program structure that has been dictated by design.

In the integration testing, the website and database is tested together. The database will retrieve data from the database server and publish it on the web page. Though at times it may seem that the database design is simple, it is good as long as it serve a good quality of data and run smoothly.

6.4 SYSTEM TESTING

After the integration testing, the system is completely assembled as a package. At this point of time a final series of system tests are carried out. The system can be said to be validated once the system functions in the manner expected.

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System testing can be divided into three main parts; which are the function testing, performance testing and acceptance testing. The function testing is carried out to validate whether the system performs functions as specified in the requirements specifications. The performance testing compares integrated component with non- functional system requirements, including security, accuracy, integrity and speed. Among the criteria important to validate during the performance test is the:

1. speed of data retrieval.
2. security precautions required.
3. consistency in the data availability.
4. precision accuracy in the data, function and process.
5. response time to user inquiry and error detection.
6. system reliability and robustness.

Unlike the first two testing which is done by the developer, the user testing is carried out by the user before the roll out of the system. Once the user validates the system, the system is generally referred to as a validated system.

Figure 2.1 Steps of system testing.

6.3 TOP-DOWN TESTING

A testing strategy is general approach to the testing process rather than a method of deriving particular system or components tests. Different testing strategies may be adopted depending on the system to be tested and the development process used. The strategy used for the testing of this web site is top-down testing.

Top-down testing tests the high levels of a system before testing its detailed components. After the top-level components have been tested, its sub-components are implemented and tested in the same way. This process continues recursively until the bottom-level components are implemented. The whole system may then be completely tested.

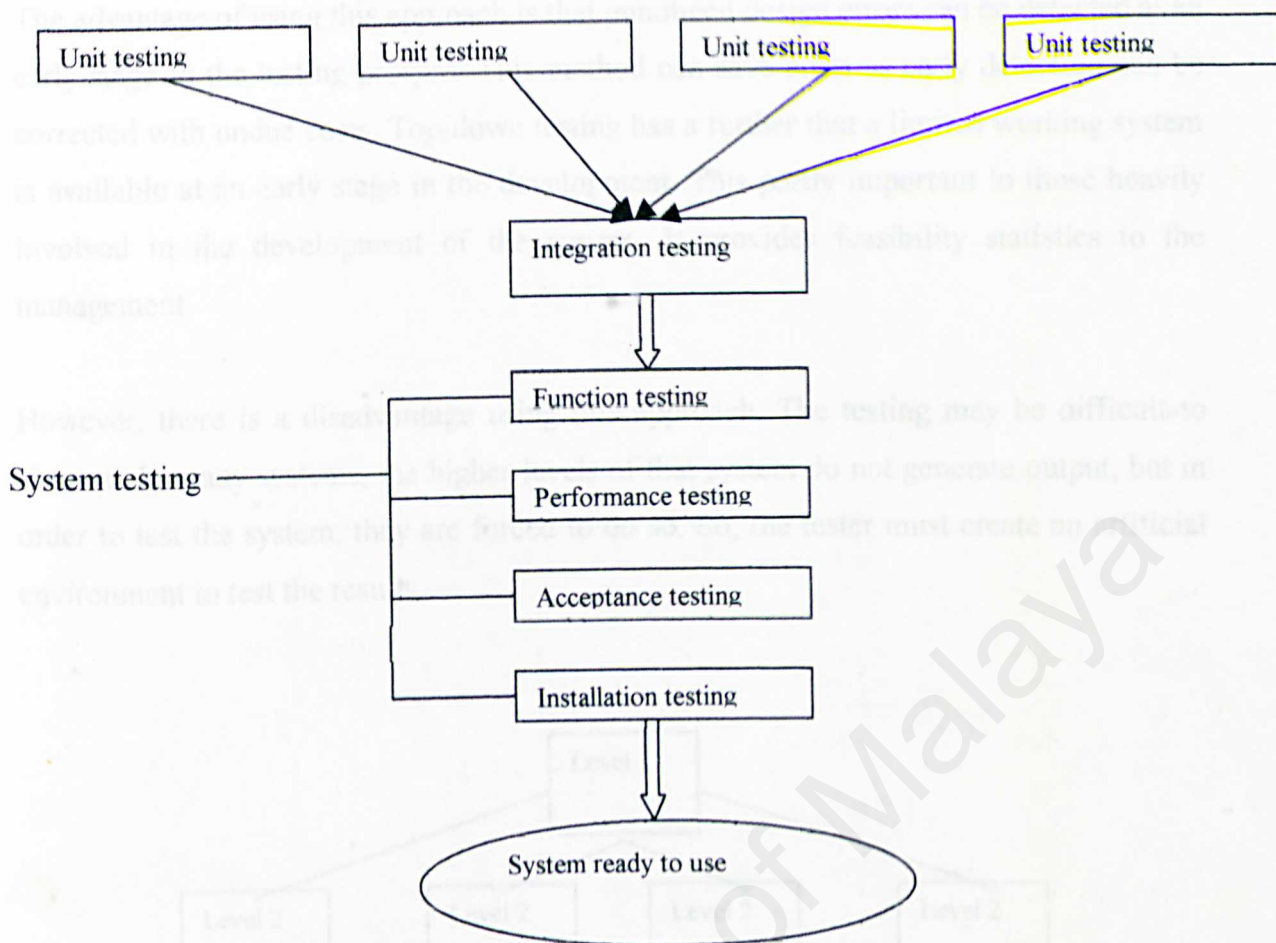


Figure 6.1 Sequence of system testing.

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The advantage of using this approach is that unnoticed design errors can be detected at an early stage in the testing process. This method can save costs as early detection can be corrected with undue costs. Top-down testing has a further that a limited working system is available at an early stage in the development. This partly important to those heavily involved in the development of the system. It provides feasibility statistics to the management.

However, there is a disadvantage using this approach. The testing may be difficult to observe. In many systems, the higher levels of that system do not generate output, but in order to test the system, they are forced to do so. So, the tester must create an artificial environment to test the results.

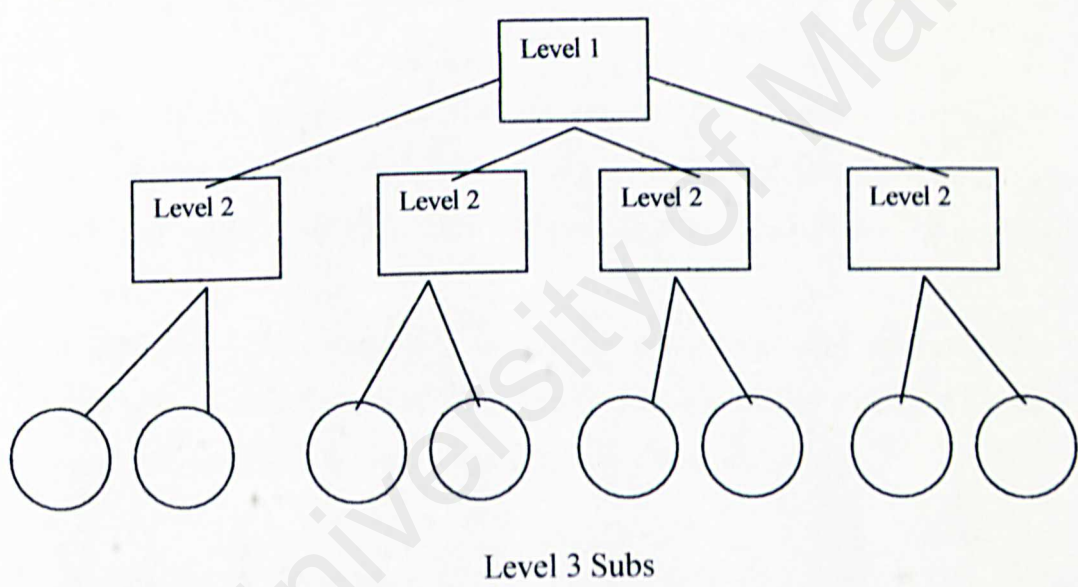


Figure 6.2 Top-down Approach.

6.6 SUMMARY.

In conclusion, I can define the testing phase has a dual function. One, is of course to establish the presence of defects in the program and second, is to judge whether or not the system is usable in practice. A developer must always remember to include testing as a schedule testing as part of the project planning process.

CHAPTER 7 SYSTEM EVALUATION

7.1 INTRODUCTION

After the development phase, coding, and the implementation phase, we have to evaluate a system or an information system for that matter. System evaluation is carried for many reasons. Among the important ones are the reasons to make evaluate our system as whole to find out its strengths, weaknesses and the possibility of future enhancements.

7.2 SYSTEM STRENGTHS

System strengths relates to all the positive features of this system. It also point out the efficiency of the system.

CHAPTER SEVEN

1. Good use of colours- Colours can do wonders to a website. In BabySpot colour are used moderately to attract users to the website. The colour scheme are balanced so as not to over do it.
2. Good user interface design- The user interface of the website are kept as simple as possible for two main reasons. One, is so that the users will not be confused when using and two, so that the web page does not look messy and cluttered.
3. Informative information- The website is better about this website is that a user will gain information about the site or maybe someone's name. That way a user can learn and build a positive knowledge on their name.
4. Design for multiethnic country- To say the least, this system is designed specifically for Malaysia as there are many races here. It caters for all the types of names: English, Malay, Indian and Chinese. The names provided in the database are all popular names in Malaysia not unfamiliar names such as Archimedes (English), Quamam (Malay-Indonesian), Que (Chinese), or Sembah (Indian).

7.3 SYSTEM LIMITATIONS

In everything or any system that we develop, there will somehow be some sort of limitations even though how perfect the system was to design to be. BabySpot has a few

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System strengths relates to all the positive features of this system. It also point outs the efficiency of this system over the existing ones.

1. Good use of colours- Colours can do wonders to a website. In Babyspot colours are used moderately to entice users to the website. The use of colours are balanced so as not to over do it.
2. Good user interface design- The user interfaces in the website are kept as simple as possible for two main reasons. One, is so that the users will not be confused when using and two, so that the web page does not look messy and cluttered.
3. Informative information- The wonderful factor about this website is that a user will gain information about his or her or maybe someone’s name. This way a user can learn and build a positive knowledge on their name.
4. Design for multi-racial country- To say the last, this system is designed specifically for Malaysia as there are many races here. It caters for all the types of names; English, Malay, Indian and Chinese. The names provided in the database all popular names in Malaysia not unfamiliar names such as Archimedes (English), Quotsam (Malay-Islamic), Guo (Chinese), or Sambath (Indian).

7.3 SYSTEM LIMITATIONS.

In everything or any system that we develop, there will somehow be some sort of limitations even though how perfect the system was to design to be. BabySpot has a few

limitations, even though not major ones. The lists below shows the few system limitations of the website.

1. Transmission line- Though the system may be design well, if the line of connection is bad, the system will not function. It will either hang or simply fail to retrieve the data.
2. Knowledge using Internet- Although designed with the most simple user interface, it requires the user to have at least some basic knowledge on how to use the Internet. The user must know where and how to key in the URL address or they might be able to search for the site.
3. Incomplete Chinese names database- Although the system will give the meaning for a Chinese name, the meaning is only for one name at a time. This means, if the user's name is Chen Shen Huei, the search will first be for Chen, and then Shen and lastly followed by Huei. What made it difficult for the Chinese name was the fact that their names are dependent on the Chinese writing. For example, Li can be pronounced in many ways, thus the many meanings of it.
4. No graphics- Due to my own incapability, I had not added to my web site graphics as the coding phase took up most of my time. Basically, the web site is a very simple web site with users main intention is to find out the meaning of their names and a few other small functions.

7.4 PROBLEMS AND SOLUTIONS.

In any project carried out, there will be some problems to it. In designing this web site, I came across a few problems. However with proper guidance, I was able to find a solution to them.

1. Time constraint- Time was very precious during this project. Each phase was given a period of time to complete. Once one phase is put on hold, the next phase and after that are all effected. A lot of time was spent on the coding and implementation phase, causing me to have limited time on the testing and

documentation phase. To solve this matter, the Document Room played a very important role in helping me carry out the documentation part. With the documentation of the previous year students' work, I was able to complete the report.

2. The installation of Windows 2000 Server and IIS- in the course of this project, I had to convert my CPU into a server. Although I had previously installed servers during my Industrial Training, I had never anticipated doing my own. After continuously failing to install, I managed to get it right.
3. No prior experience- I had never designed a web site before. Even during my Industrial Training, I had only used Clipper and Visual Basic for programming. So, learning the web-based programming language and development tools took some time as I never had the knack for programming. I had managed to solve my problem by surfing the Internet. There are many sites that offer help to novices in their quest for new knowledge. The sites I had visited are listed in the reference section. They were a big help in giving tutorials and guides.
4. Limited library reference- Due to financial constraints, I had to go to the UM Library often to get reference books. However, I had observed that the library had very limited good choices of books on the open stacks. Most of them were outdated for about five to six years. As for the 'red spot' books, it was very difficult to actually try to borrow them. To overcome this problem, I had to actually fish out money to purchase quality books or rather buy and exchange with friends and, of course the Internet.

7.5 FUTURE ENHANCEMENT.

Although the web site is a complete to roll out site, I wish for future enhancements. This will not only make BabySpot even popular but make as the same standards as the other existing web sites on baby names.

Among the future enhancements that I would like to add to BabySpot are:

1. More graphical effects- The web site is presented in the most straight forward form. There are no graphics and beautiful backgrounds to them. In future, I wish to add all these to my web site to make it more appealing to users.
2. Online chat room- Also, like many other web sites, an online chat room will definitely encourage many users to chat with each other and express their opinions on various matters.
3. Main baby names center- I also hope to make BabySpot a main center for Malaysians. Besides that I would like to enhance all its features, like maybe I can have section for mothers-to-be. There can be guides and tips for them to follow.

7.6 CONCLUSION.

In conclusion, developing BabySpot had taken up most of my time as there were just to many things for me to learn. Being a slow learner in programming, developing this web site was the greatest challenge in the past 3 years of studies.

Without this project, I would not know to do certain things such as to program in HTML, some basic knowledge in VB Script and ASP. This experience will definitely help me in my future undertakings.

APPENDIXES

A. USER MANUAL

1.0 PURPOSE OF BABYSPOT

2.0 HOW TO ACCESS

3.0 USER INTERFACES :

3.1 THE MAIN PAGE

3.1.1 EXAMPLE OF A NAME SELECTION

3.1.2 PRINT OUT FUNCTION

3.2 SUGGESTIONS

3.3 BABY HOROSCOPE

B QUESTIONNAIRE

C GLOSSARY

USER MANUAL.

1.0 PURPOSE OF BABYSPOT.

A name can say a whole lot about someone. Parents often name their babies after maybe their loved ones or someone famous. In relation to all this, 'BabySpot' will serve as a means of searching and browsing for baby names. While it may seem that this particular system will be appropriate for parents, it will provide service for users interested in finding out the meaning of their names and the origins, and for those just keen in knowing the meaning of a certain name.

The most interesting factor about this system is that it will be able to accommodate all the names of babies in Malaysia. This means that just at one stop, a user will be able to access either English, Malay, Chinese or Indian names. It will provide service for the multi-racial countries in the world, such as Malaysia.

2.0 HOW TO ACCESS.

BabySpot is a web-based system. In order to access the web site, I would suggest that the user use the Microsoft Internet Explorer 5.0. It can be best viewed with the 800 x 600 pixels resolution with 16 bits colours.

Users can also view the web site at the URL :

<http://localhost/Babyspot/>

3.0 USER INTERFACES.

3.1 THE MAIN PAGE.

The main for BabySpot is as shown below. I have explained below how to use the main page.



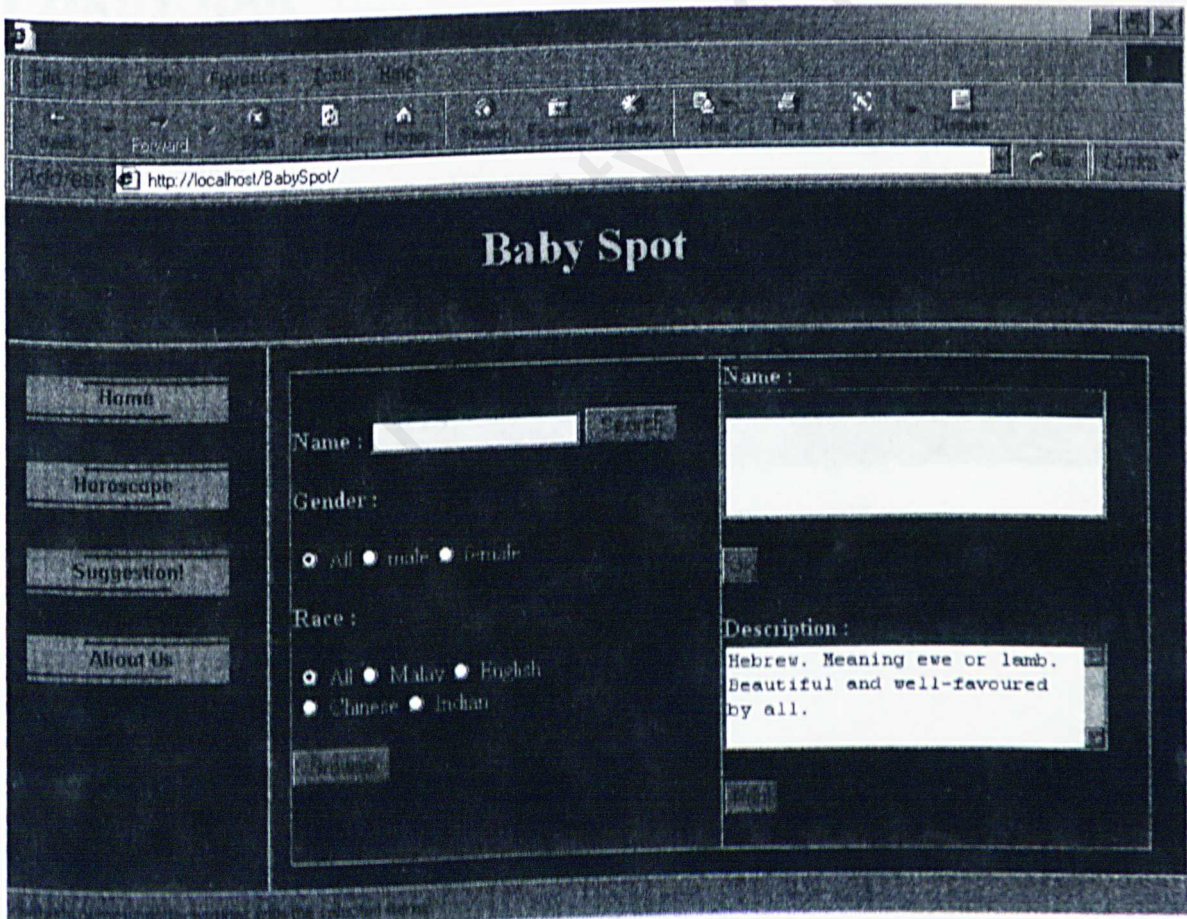
1. All the names (from the database) will be listed in the name list box.
2. A name/keyword can be typed in the space given at the 'Search' button. When a user click the "Search" button, all the names containing the keyword will be listed down in the name list box.
e.g "Jun" is keyed and "Search" button is pressed, in the name list box, the name will be listed. Its name meaning will be given in the description section.
3. If one of the gender is checked, the names in the list box will be refreshed to filter out accordingly. The same goes for races checkboxes.

- 4. Once a name is selected (the name will be highlighted in blue), a user can find the description for the name i.e: origins, language etc. by clicking Ok.
- 5. Users may click the “print” button to obtain a hardcopy of the selected name.
- 6. As you can see the frame on the left hand side links to this Main Page, as well as suggestion, horoscope and About Us.

3.1.1 EXAMPLE OF A NAME SELECTION.

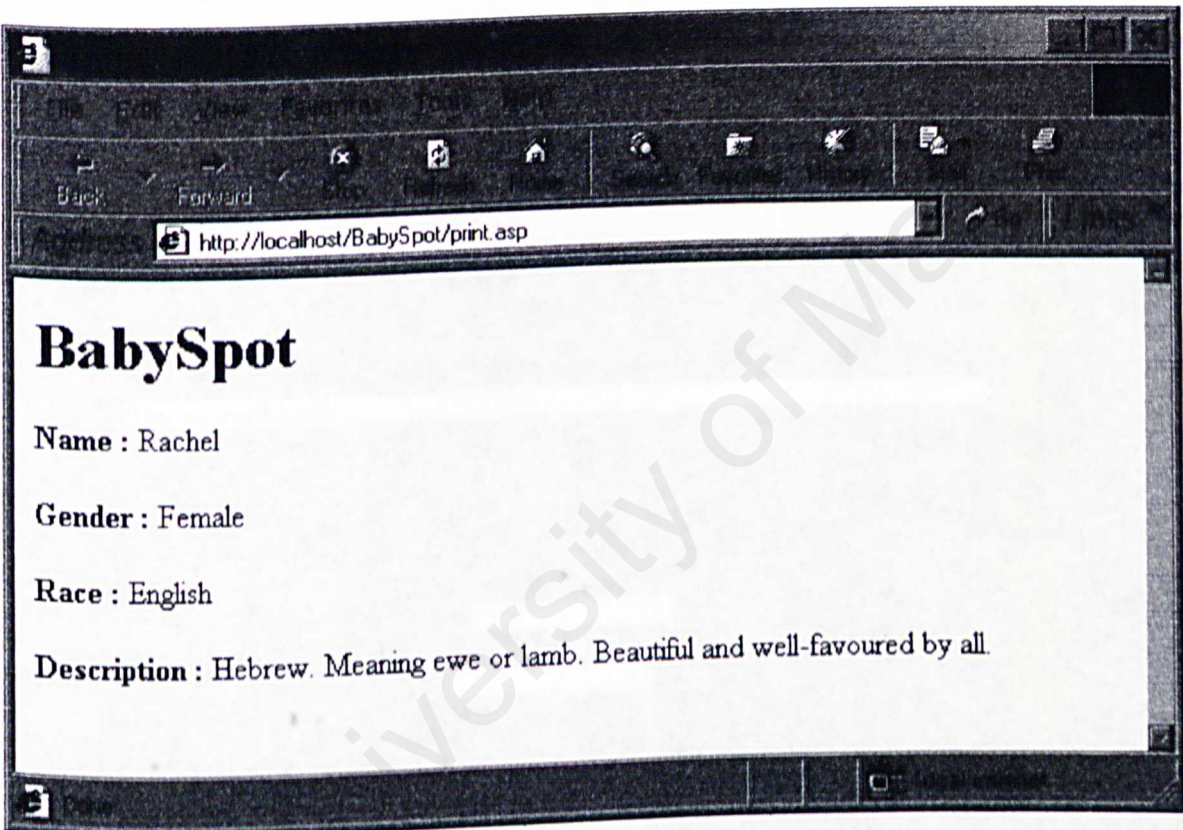
For example, say that I want to know the meaning of Rachel. I can either use the search button or browse the database in order to find out.

So, when I use the browse button, first I have to select the gender as female and race as English. Then I click the browse button. The meaning of the name will appear as shown below.



3.1.2 PRINT OUT FUNCTION.

If I wanted to print out the result of my search, all I have to do is click print and a new page bearing the layout of the name will appear and then the user can print. The example of that page is shown below.

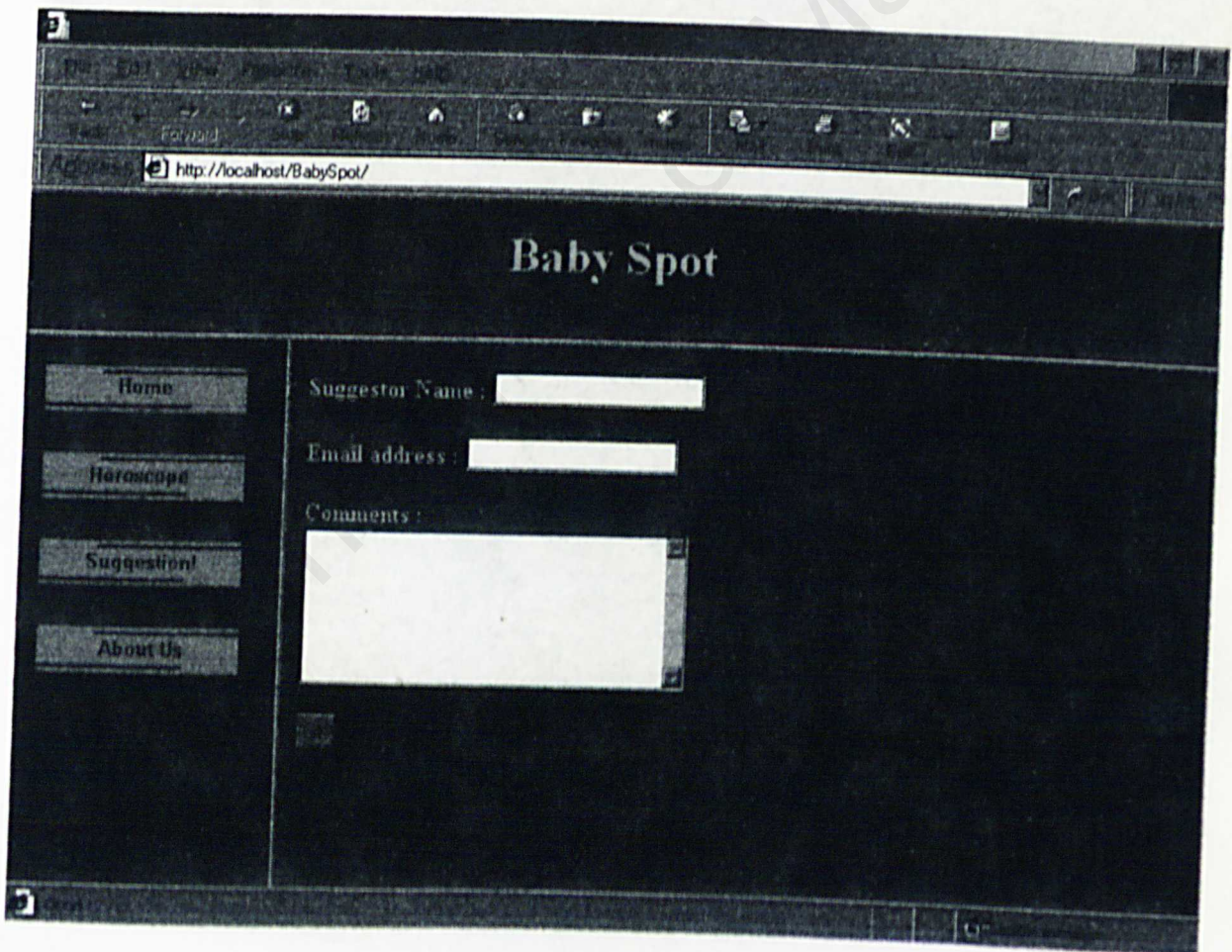


3.2 SUGGESTIONS.

I have also added the user feedback form, for any views that the user might want to share with us. In this page, the user could also suggest a name with its meaning of they find that it is not in the database.

They can even give the meaning of a name that they feel that has been given the wrong meaning. The administrator will check it out and do the necessary changes if needed.

As you can see, in the first box, a user could suggest a name. Next they will fill in their e-mail address, so that the administrator can contact them for further details. Lastly, the comments box is the space where a user can write anything they want.



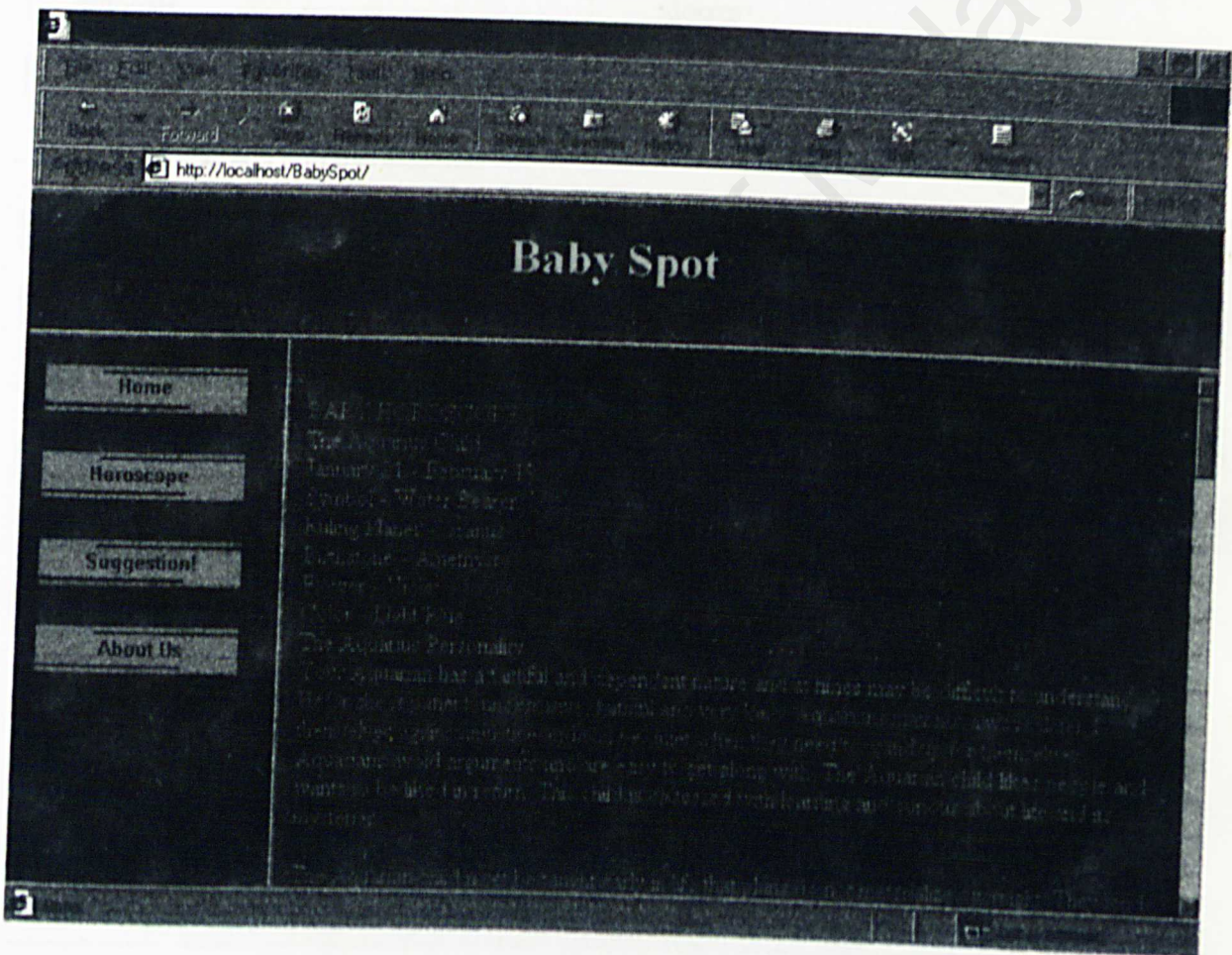
The screenshot shows a web browser window with the address bar displaying "http://localhost/BabySpot/". The website has a dark background with the title "Baby Spot" in a large, light-colored font. On the left side, there is a vertical menu with four buttons: "Home", "Horoscope", "Suggestion!", and "About Us". The main content area on the right contains a feedback form with the following fields:

- Suggestor Name :
- Email address :
- Comments :

3.3 BABY HOROSCOPE.

The baby horoscope is just as a simple guide for parents wanting to know the type of character of their baby. Note that this not 100 percent true, especially for those who do not believe in horoscope.

Basically it is just for fun and makes the parents look forward in the development of their children. It also lists the birthdays of stars and small interesting matters such as, the symbol, ruling plant, birthstone, flower, color and personality.



QUESTIONNAIRE.

This questionnaire is carried out for the purpose of my Thesis Project to find out the awareness of baby names sites. Kindly help to fill out the answers.
Thank you.

1. Gender

☐ Male

☐ Female

2. Do you know the meaning of your name?

☐ Yes

☐ No

3. If Yes, from what source did you get the meaning of your name?

☐ Internet

☐ Books

☐ Family, friends

☐ Others: _____

4. How often do you surf the Internet?

☐ Everyday

☐ Every few days

☐ Weekly

☐ Seldom

5. Do you know about the existing web sites that cater for meaning of baby names?

☐ Yes

☐ No

6. Have you ever visited any baby names web site?

☐ Yes

☐ No

7. If Yes, do you think that web site/web sites provide a good selection of names for Malaysians?

☐ Yes

☐ No

8. If No, please state your reason as to why.

9. Have the web site/ web sites that you visited cater names in English, Malay, Chinese and Indian in one web site?

☐ Yes

☐ No

☐ Some of them

GLOSSARY.

ActiveX A Technology that enables software components developed in different languages to share data and work cooperatively in a networked environment. COM and DCOM are the core technologies of ActiveX.

ActiveX Control These controls were formerly known as OLE controls. They are binary components built using COM. The controls typically contain business logic or GUI functions.

Authenticate When referred to in terms of program or data security, authenticate refers to the act of proving to the program or database that the user is an allowed user. Authentication is usually performed by matching a username (UID) with a secret password (PID).

Bottom-up design Starts with the details and works up to the function of the process.

GUI Graphical User Interface. The user is presented with visual images and text for interaction with the system.

HTML Hypertext Markup Language. A tag-based language used for the document formatting on the World Wide Web.

Internet Mail Service A standard service of the Internet that provides for the personal electronic mail.

Internet Newsgroup A standard service of the Internet that provides for public electronic mail.

Top-down design Starts at the top, with the function of the process, and works its way down to the details necessary to support the function.

Wizard A help window that leads you through a task step-by-step. Some wizards let you answer questions and then execute the application options for you.

REFERENCE

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REFERENSI

Internet

1. <http://www.Abbeysoft.com>
2. <http://www.Misa.com>
3. <http://www.Foxit.com>
4. <http://www.Yahoo.com>
5. <http://www.Hotmail.com>
6. <http://www.Cable.com>
7. <http://www.Microsoft.com>
8. <http://www.scribd.com>
9. <http://babytronic.org/babytronic/babytronic.html>
10. <http://www.babytronic.com/special/babytronic.html>
11. <http://www.babytronic.com/babytronic/babytronic.html>
12. <http://www.mcafee.com/babytronic>
13. <http://www.mcafee.com/babytronic>
14. <http://www.mcafee.com/babytronic>

REFERENCE

Books

1. Sommerville, Ian, Software Engineering, Addison-Wesley, Fifth Ed., 1998
2. Pressman, Roger S, Software Engineering A Practitioner's Approach, McGraw Hill, Fifth Ed., 2001
3. Eizenstein, David M, Software Engineering, Prentice Hall, Sixth Ed., 1998
4. McLaren, Bruce J, Microsoft Aspects 97, Southern Western Publishing, First Ed., 1998
5. Barron, Ann, Lyskaver, Chet, Microsoft Frontpage 98, Course Technology, Standard Ed., 1998
6. Orsis, William J, Develop a Professional Visual Basic Application in 14 Days, SAMS Publishing, First Ed., 1995
7. Buerly, Eric, Samra, Paul, Prince, Anthony, Visual Basic 5 How To, Warr Group Press, First Ed., 1998

REFERENCE.

Internet.

1. <http://www.Altavista.com>
2. <http://www.Msn.com>
3. <http://www.Excite.com>
4. <http://www.Yahoo.com>
5. <http://www.Hotbot.com>
6. <http://www.Catcha.com>
7. <http://www.Microsoft.com>
8. <http://www.atomor.demon.co.uk/design/index.htm>
9. <http://babynames.pregnancy.yahoo.com/bfname>
10. <http://www.indiaexpress.com/specials/babynames/>
11. <http://www.kalabarians.com/female/chinesef.htm>
12. <http://www.maxpages.com/babynames>
13. <http://developer.netscape.com/>
14. <http://webreference.com/dhtml/>

Books.

1. Sommerville, Ian, Software Engineering, Addison-Wesley, Fifth Ed., 1998.
2. Pressman, Roger S, Software Engineering A Practitioner's Approach, McGraw Hill, Fifth Ed., 2001.
3. Kroenke, David M, Database Processing, Prentice Hall, Sixth Ed., 1998.
4. McLaren, Bruce J, Microsoft Access 97, Southern-Western Publishing, First Ed., 1998.
5. Barron, Ann., Lyskawa, Chet, Microsoft Frontpage 98, Course Technology, Standard Ed., 1998.
6. Orvis, William J, Develop a Professional Visual Basic Application in 14 Days, SAMS Publishing, First Ed., 1995.
7. Brierly, Eric., Sanna, Paul., Prince, Anthony., Visual Basic 5 How To, Waite Group Press, First Ed., 1998.

8. Kendall, Kenneth., Kendall, Julie., System Analysis and Design, Prentice Hall, Fourth Ed., 1999.
9. Wille, Christoph, Koller, Christian, SAMS Teach Yourself ASP in 24 Hours, SAMS Publishing, First Ed., 1999.
10. Greer, Cassandra, Raggett, Dave, Ragget, Jenny, Boumphrey, Frank, Beginning XHTML, Wrox Press Ltd, First Ed., 2000.
11. Balena, Francesco, Programming Microsoft Visual Basic 6.0, Microsoft Press, First Ed., 1999.
12. Campione, Mary, Walrath, Kathy, The Java Tutorial – Object-Oriented Programming for the Internet, Addison-Wesley, Second Ed., 1998.
13. Holzschlag, Molly, Using HTML 4, QUE Publishing, Sixth Ed., 2000.
14. Turner, Barksdale, Ashton, Bumgardner, Knowlton, Paulsen, Stephens., Java Programming for the Internet, South-Western Educational Publishing, First Ed., 1998.
15. Graham, Ian, HTML Stylesheet Sourcebook, Wiley Computer Publishing, First Ed., 1997.
16. Vodnik, Sasha, Microsoft FrontPage 2000, Course Technology, First Ed., 2000.
17. Teague, Jason, DHTML for the World Wide Web, Peachpit Press, First Ed., 1998.
18. Graham, Ian, HTML Sourcebook, John Wiley & Sons, First Ed., 1995.
19. Weissinger, Keyton, ASP in a Nutshell, O' Reilly, First Ed., 1999.